

APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES						
MOTOROLA IMPRES 2 BATTERIES										
PORTABLE RADIOS		DESCRIPTION		PART NUMBER	BYPES	OPERATING CAPACITY (mAh)	DIMENSIONS (INCHES)	WEIGHT (MAX. GRAVITY)	HAZARD-SEPARABLE	IP RATING
APX 8000 APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200			IMPRES 2 Li-Ion 3400 mAh Battery, IP68 Rugged	PMNN4086	●	3400	86 x 59 x 42	165		● IP68 Rugged
	APX 1000 APX 1000XE		IMPRES 2 Li-Ion 2550 mAh Battery, IP68 Rugged	PMNN4085	●	2550	86 x 59 x 37	150		● IP68 Rugged
	APX 6000 APX 6000XE SRX 2200		IMPRES 2 Li-Ion 4850 mAh Battery, IP68 Rugged, -30°C Rated	PMNN4087	●	4850	130 x 59 x 42	320		● IP68 Rugged
			IMPRES 2 Li-Ion 5100 mAh Battery, IP68 Rugged	PMNN4094	●	5100	130 x 59 x 42	320		● IP68 Rugged
	APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200		IMPRES 2 Li-Ion 2650 mAh Battery, IP68 Rugged	NNTW0930	●	2650	86 x 59 x 42	165	UL	● IP68 Rugged
			IMPRES 2 Li-Ion 4500 mAh Battery, IP68 Rugged	NNTW0921	●	4500	130 x 59 x 42	320	UL	● IP68 Rugged
APX 6000XE		IMPRES 2 Li-Ion 3100 mAh Battery, IP68 Rugged	PMNN4547	●	3100	86 x 59 x 45	200	UL	● IP68 Rugged	
			IMPRES 2 Li-Ion 3400 mAh Battery, IP68 Rugged	PMNN4504	●	3400	86 x 59 x 42	185	UL	● IP68 Rugged
			IMPRES 2 Li-Ion 4850 mAh Battery, IP68 Rugged, -30°C Rated	PMNN4505	●	4850	130 x 59 x 42	320	UL	● IP68 Rugged
MOTOROLA IMPRES BATTERIES The only batteries developed, tested and certified for optimal performance with your APX radio. APX batteries are Proven Tough, in lab test after lab test, to withstand shocks, knocks, drops and shakes and outperform the other brands.										
APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200			IMPRES Li-Ion 2550 mAh Battery, IP68 Rugged	NNTW0932	●	2550	86 x 59 x 42	160	FM	● IP68 Rugged
			IMPRES Li-Ion 4300 mAh Battery, IP68 Rugged	NNTW0933	●	4300	130 x 59 x 42	285	FM	● IP68 Rugged
			IMPRES NiMH 2300 mAh Battery, IP67	NNTW0937	●	2300	136 x 59 x 40	335		● IP67

MOTOROLA IMPRES BATTERIES The only batteries developed, tested and certified for optimal performance with your APX radio. APX batteries are Proven Tough, in lab test after lab test, to withstand shocks, knocks, drops and shakes and outperform the other brands.



IMPRES 2 – A NEW GENERATION. COMPLETELY RE-ENERGIZED.

With IMPRES 2 chargers, you can charge IMPRES 2 batteries up to 40% faster. Customize your charging to extend the life of batteries in storage, manage power more intelligently with enhanced diagnostics, so you get the most from each battery. IMPRES 2 batteries have been improved inside and out, so your team can tackle whatever the day brings. With higher capacity, you'll get more talk time. With better water resistance, you'll never think twice about submersion. And with the ability to charge up to 60% more times than standard Lithium Ion batteries, you'll reduce costs.

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† Historic Details: For more information on which accessories are approved by Factory Mutual (FM) or Underwriters' Laboratory (UL) with certain APX models, please consult the manual provided with each file, or UL-approved APX portable.

APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES							
MOTOROLA IMPRES BATTERIES: The only batteries developed, tested and certified for optimal performance with your APX radio.											
APX batteries are proven tough, in full test after 100 tests, to withstand shocks, knocks, drops and abuse from the most brands.											
PORTABLE RADIOS	DESCRIPTION	PART NUMBER	IMPRES	RECHARGE	TYPICAL CHARGING CAPACITY (HOURS)	WEIGHT (MAX. APPROX.)	LOGIC-CAPABLE	IP RATING			
APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 IMPRES NiMH 2200 mAh Battery IP68 Rugged	NNTN1005	●	NiMH	2200	135 x 59 x 40	FM	IP68 Rugged			
	 APX Camshaft Battery Pack, IP57 Requires 12 AA Alkaline batteries (not included).	PNNN0439	●	AA Alkaline/ Li-Ion	Alkaline: 2700 Li-Ion: 5100	105 x 60 x 60	Alkaline: 476 Li-Ion: 380	IP57			
	 Military, Li-Ion 3100 mAh, Battery IP68 Rugged, Coyote Brown	NNTN8182	●	Li-Ion	3100	86 x 59 x 42	185	IP68 Rugged			
	 IMPRES Li-Ion 2000 mAh Slim Battery, IP67	NNTN8128	●	Li-Ion	2000	115 x 52 x 18	160	IP67			
APX 4000 APX 3000 APX 1000 APX 900	 IMPRES Li-Ion 2350 mAh Battery, IP57	PNNN0424	●	Li-Ion	2350	115 x 52 x 23	170	IP67			
	 IMPRES Li-Ion 2800 mAh Battery, IP57	PNNN0448	●	Li-Ion	2800	115 x 52 x 23	170	IP67			
APX 900	 IMPRES Li-Ion 2500 mAh Battery, IP68	PNNN0469	●	Li-Ion	2500	115 x 52 x 23	170	UL	IP68		
	 IMPRES Li-Ion 2100 mAh Battery, IP68	PNNN0491	●	Li-Ion	2100	115 x 52 x 18	160	IP68			
APX 4000 APX 3000 APX 1000	 IMPRES Li-Ion 3000 mAh Battery, IP68	PNNN0483	●	Li-Ion	3000	115 x 52 x 23	170	IP68			
	 IMPRES Hi-Cap Li-Ion 2500 mAh Battery, IP57	NNTN8560	●	Li-Ion	2500	113 x 52 x 23	195	UL	IP57		
APX 3000 APX 1000	 IMPRES Li-Ion 2350 mAh Battery, IP57	NNTN8129	●	Li-Ion	2350	115 x 52 x 23	170	FM	IP67		
	 IMPRES Li-Ion 1300 mAh Slim Battery, IP57	NNTN8305	●	Li-Ion	1300	115 x 52 x 14	98	IP67			

† Model Details: For more information on which accessories are approved by Intertek, please consult the manual provided with each IM or UL approved APX portable.



INCREASED CAPACITY

DO MORE WITHOUT THE BULK.

First responders, public works employees, and other professionals know that shifts aren't getting any shorter. Thankfully, you can keep your people connected even longer. IMPRES 2 batteries deliver higher capacity without an increase in size.

DURABLE DESIGN

TACKLE THE TOUGHEST CONDITIONS.

Wherever the job takes you, be confident your battery will be up to the challenge. All IMPRES 2 batteries share the same IP68 rating as APX radios, which means they can be fully submerged in two meters of water for up to four hours. Designed with a rugged housing, they're as tough as the radios they charge. And in test after test, IMPRES 2 batteries continually withstand shocks, knocks, drops and slakes, outperforming the competition every time.



EXTENDED BATTERY LIFE

EXTENDED LIFE. BUILT TO LAST.

You face challenges every day. Battery life shouldn't be one of them. IMPRES 2 batteries, when combined with an IMPRES 2 charger, deliver up to 60% more charging cycles than traditional Lithium Ion batteries, so they're on the job longer. Which means you can stock fewer spares, and replace fewer batteries. We've also extended our capacity warranty from 18 to 24 months*, while backing all IMPRES batteries with a long 48 month workmanship warranty. IMPRES 2 batteries are compatible with all existing IMPRES chargers, so your upgrade will be a smooth one.

*IMPRES 2 batteries are charged and only in use with IMPRES 2 chargers. IMPRES 2 batteries are not compatible with other chargers or radios.



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APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES						
CHARGER SOLUTIONS Choose from a variety of solutions including single-unit, unique dual-unit, multi-unit, travel and vehicular chargers and be confident your radio is charged and ready to go the moment you need it.										
PORTABLE RADIOS	DESCRIPTION	PART NUMBER	IMPRES	CHARGE IN	POWER SOURCE	DIMENSIONS (INCHES)	NUMBER OF PORTS	RECHARGING CAPABILITY	CHARGING CURRENT (MA)	NUMBER OF BATTERIES
SINGLE AND MULTI-UNIT CHARGERS										
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200		NNTN8880	●	Li-Ion, NiMH	115VAC	60 x 97 x 163	1	●	Fast	1
		NNTN8883	●	Li-Ion, NiMH	100-240VAC	60 x 97 x 163	1	●	Fast	1
APX 4000 APX 3000 APX 1000 APX 900		PMFWA174	●	Li-Ion, NiMH	115VAC	61 x 97 x 163	1	●	Rapid Rate	1
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200		NNTN7593	●	Li-Ion, NiMH	120VAC	64 x 142 x 208	2	●	Rapid Rate	2
		NNTN8844	●	Li-Ion, NiMH	100-240VAC	153 x 445 x 292	6	●	Fast	6
APX 4000 APX 3000 APX 1000 APX 900		PMFW284	●	Li-Ion, NiMH	115VAC	117 x 444 x 170	6	●	Rapid Rate	1
SRX 2200		NNTN8185	●	Li-Ion, NiMH	120VAC	153 x 445 x 292	6	●		
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200		NUN7567	●							

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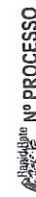


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CHARGE FAST. RESPOND FASTER.

With IMPRES 2 chargers, you can charge IMPRES 2 batteries up to 40% faster. Customize your charging to extend the life of batteries in storage. And manage power more intelligently with enhanced diagnostics, so you get the most from each battery.

Get a detailed look at performance while your batteries charge. A built-in diagnostic tool, integrated in the multi-unit charger, provides important usage data, such as a battery's ability to hold a charge and its time in service. Use the information to manage your fleet more efficiently, and replace low capacity batteries before it's too late.



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APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	FEATURES						
CHARGER SOLUTIONS Choose from a variety of solutions including single-unit, multi-unit, travel and vehicular chargers and be confident your radio is charged and ready to go the moment you need it.								
PORTABLE RADIOS	DESCRIPTION	PART NUMBER	TYPE	CHARGER	POWER SOURCE	DIMENSIONS (IN/LMMETRS) (H x W x D)	MAINTENANCE PLATES	CHARGING CURRENT (MAX)
VEHICULAR, TRAVEL CHARGERS AND VEHICULAR ADAPTER								
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 IMPRES Single-Unit Rapid Rate Vehicular Charger	NTN7624	•	Li-Ion, NiMH	12VDC Hardwire	82 x 97 x 200	1	Rapid Rate
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 IMPRES Single-Unit Rapid Rate Vehicular Charger	NTN7616	•	Li-Ion, NiMH	12VDC Hardwire	82 x 97 x 200	1	Rapid Rate
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 Travel Charger with Voltage Regulated Vehicular Charger Adapter, Custom Charger Base, Mounting Bracket, and Coil Cord	RLN6504		Li-Ion, NiMH	12VDC Cigarette Lighter Adapter	67 x 67 x 70	1	
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 Travel Charger with Voltage Regulated Vehicular Charger Adapter, Custom Charger Base, Mounting Bracket, and Coil Cord	NTN6525		Li-Ion, NiMH	12VDC Cigarette Lighter Adapter	64 x 67 x 57	1	
APX 8000 APX 8000XE APX 7000 APX 7000XE APX 6000 APX 6000XE SRX 2200	 APX Vehicular Adapter includes Fused Power Cable, 2 Keys for the Lock, Screws for Attaching Vehicular Adapter to the Transition Mounting Bracket & Quick Start Guide. Transition mounting bracket NTN8940 ordered separately.	NTN8527		Li-Ion	12VDC Hardwire	254 x 137 x 64	1	
	 Transition Mounting Bracket	NTN8940						



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Rapid Rate

Rapid Rate

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COMPATIBILITY	ACCESSORY	
CHARGER SOLUTIONS		
PORTABLE RADIOS	DESCRIPTION	PART NUMBER
IMPRES BATTERY MANAGEMENT TOOLS		
APX 8000 APX 8000CE APX 7000 APX 7000CE APX 6000 APX 6000CE APX 5000 APX 5000CE APX 4000 APX 4000CE APX 3000 APX 3000CE APX 2000 APX 2000CE APX 1000 APX 1000CE APX 500 APX 500CE APX 2200	 IMPRES Battery Reader	NNTN732
	 IMPRES Battery Fleet Management Software	https://www.netrodnsolutions.com/en_us/products/two-way-radio-accessories/batteries/impres.html
	 IMPRES Battery Fleet Management License Key	HKVN4036
	 IMPRES Battery Fleet Management Multi-Unit Charger Interface Unit	NNTN727
	 IMPRES Battery Fleet Management Single-Unit Charger Interface Unit	NNTN8045
KEYLOAD CABLES		
APX 8000 APX 8000CE	 Keyload RS-232 Cable	WPLN6305
	 Keyload Cable	CKN504
APX 7000 APX 7000CE APX 6000 APX 6000CE APX 5000 APX 5000CE APX 4000 APX 4000CE APX 3000 APX 3000CE APX 2000 APX 2000CE APX 1000 APX 1000CE APX 500 APX 500CE APX 2200	 Keyload Cable, KVI 3000 and KVI 4000	WPLN6504



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HOW DO I KNOW MY BATTERIES WILL LAST AN ENTIRE SHIFT?

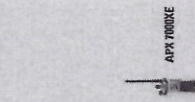
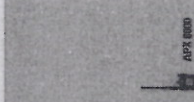
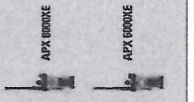
With the unique IMPRES Battery Reader and IMPRES Battery Fleet Management systems, you can efficiently manage batteries with real-time data not available from other manufacturers.

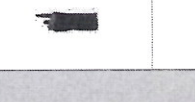
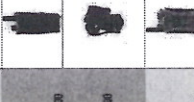
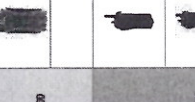
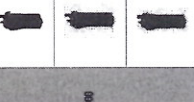
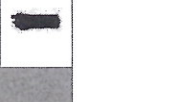
These easy-to-use software applications show you if there is enough capacity for a full shift, alert you to low capacity batteries, prevent downtime and eliminate throwing batteries out prematurely.

Motorola Leather Carry Cases constructed of top-grain leather are designed to withstand the harsh conditions of public safety users.

COMPATIBILITY		ACCESSORY		FEATURES			
CARRY SOLUTIONS							
PURTABLE BAGS	255-DRUM	PASTA-BOXES	MATERIAL	ELECTROFLIP DRAWSTRING LATCHES	SWITCH SPEED	DRIP-ON	COMPARTMENTS
APX 7000		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop	PMLN5524	Hard Leather	2.75	Swivel	NNTN7008 NNTN8092 NNTN8050 PMLN4403 PMLN4465 PMLN4466
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop	PMLN5527	Hard Leather	2.75	Swivel	NNTN7003 NNTN7004
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop	PMLN5530	Hard Leather	2.75	Swivel	NNTN7005 NNTN7006 NNTN7037 NNTN7573
		Dual Display Radio Flip Leather Carry Case with 2.75" Swivel Belt Loop	PMLN5550	Hard Leather	2.75	Swivel	NNTN7038 NNTN8092 PMLN4403
APX 7000E APX 7000 APX 7000E		Molded Nylon Carry Case with Quick Disconnect Swivel and Adjustable Unpad	PMLN6802	Nylon		Swivel	 N°P
		Leather Carry Case with 3" Fixed Belt Loop	NNTN8112	Hard Leather	3	Fixed	NNTN7038 NNTN8092 PMLN4403 NNTN8092 NNTN7033 NNTN7004 NNTN8092 NNTN7033 NNTN7004 NNTN7033 NNTN7037 NNTN7573
		Leather Carry Case with 3" Fixed Belt Loop	NNTN8114	Hard Leather	3	Fixed	
		Leather Carry Case with 3" Fixed Belt Loop	NNTN8116	Hard Leather	3	Fixed	

APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES			PORTABLE RADIOS	
CARRY SOLUTIONS		DESCRIPTION		PART NUMBER	MATERIAL	BELT CLIP OR SWIVEL (INCHES)	SWIVEL / FIXED	BARRELS
	APX 8000E	Leather Carry Case with 2.75" Swivel Belt Loop		NNTN8111	Hard Leather	2.75	Swivel	NNTN7038 NNTN8092 PMNNA403
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		NNTN8113	Hard Leather	2.75	Swivel	NNTN7034 NNTN7034 PMNNA487 PMNNA494 NNTN8921
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		NNTN8115	Hard Leather	2.75	Swivel	NNTN7035 NNTN7036 NNTN7037 NNTN7573
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop. Accessory: Radio strap holds down radio by strapping over the Audio Accessory connector, used with Boston Leather radio straps		AY000222A01	Hard Leather			
	APX 8000	Leather Carry Case with 3" Fixed Belt Loop		PMNLN7903	Hard Leather	3	Fixed	NNTN7038 NNTN8092 PMNNA403 PMNNA485 PMNNA486 PMNNA487 NNTN8500 (for APX 8000)
		Leather Carry Case with 3" Fixed Belt Loop		PMNLN5660	Hard Leather	3	Fixed	NNTN7033 NNTN7034 PMNNA487 PMNNA494 NNTN8921 (for APX 8000)
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		PMNLN7904	Hard Leather	2.75	Swivel	NNTN8092 PMNNA485 PMNNA486 PMNNA487 NNTN8500 (for APX 8000)
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		PMNLN5659	Hard Leather	2.75	Swivel	NNTN7033 NNTN7034 PMNNA487 PMNNA494 NNTN8921 (for APX 8000)
	APX 8000E	Leather Carry Case with 3" Fixed Belt Loop		PMNLN7905	Hard Leather	3	Fixed	NNTN7038 NNTN8092 PMNNA403 PMNNA485 PMNNA486 PMNNA487 NNTN8500 (for APX 8000E) PMNNA504 (for APX 8000E)
		Leather Carry Case with 3" Fixed Belt Loop		PMNLN5328	Nylon	3	Fixed	NNTN7035 NNTN7036 NNTN7037 NNTN7573

COMPATIBILITY		ACCESSORY		FEATURES			PORTABLE RADIOS	
CARRY SOLUTIONS		DESCRIPTION		PART NUMBER	MATERIAL	BELT CLIP OR SWIVEL (INCHES)	SWIVEL / FIXED	BARRELS
	APX 8000E	Leather Carry Case with 3" Fixed Belt Loop		PMNLN5979	Hard Leather	3	Fixed	NNTN7033 NNTN7034 PMNNA487 (for APX 8000E) PMNNA494 (for APX 8000E) NNTN8921 (for APX 8000E) PMNNA505 (for APX 8000E)
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		PMNLN7906	Hard Leather	2.75	Swivel	NNTN7038 NNTN8092 PMNNA403 PMNNA485 PMNNA486 (for APX 8000E) NNTN8500 (for APX 8000E) PMNNA504 (for APX 8000E)
		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop		PMNLN8117	Hard Leather	2.75	Swivel	NNTN7033 NNTN7034 PMNNA487 (for APX 8000E) PMNNA494 (for APX 8000E) NNTN8921 (for APX 8000E) PMNNA505 (for APX 8000E)
		Leather Carry Case with 2.5" Swivel Belt Loop		PMNLN6065	Hard Leather	2.5	Swivel	NNTN7033 NNTN7034 PMNNA487 (for APX 8000E)
	APX 1000	Carry Case for APX 4000 Two Knob Radios		PMNLN7182	Hard Leather	2.5	Swivel	
		Replacement Belt Loop for PMNLN7182		PMNLN7239	Nylon	Up to 5	Fixed	
	SIX 2200	Nylon, Coyote Brown Carry Pouch designed to fit Elite Special Ops "Molle" Vest (sold separately)		NNTN8269	Nylon	Up to 5	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921
		Coyote Brown Carry Case		RLN6253	Nylon	Up to 5	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921
	APX 7000	Nylon Carry Case with 3" Fixed Belt Loop		PMNLN5322	Nylon	3	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921
		Nylon Carry Case with 3" Fixed Belt Loop		PMNLN5325	Nylon	3	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921
	APX 7000	Nylon Carry Case with 3" Fixed Belt Loop		PMNLN5328	Nylon	3	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921
		Nylon Carry Case with 3" Fixed Belt Loop		PMNLN5328	Nylon	3	Fixed	NNTN7033 NNTN7034 PMNNA487 NNTN8921

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APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES			
CARRY SOLUTIONS							
PORTABLE RADIOS	DESCRIPTION	PART NUMBER	MATERIAL	BUCKLE ADJUSTABLE (INCHES)	SWIVEL FIELD	STRAP	COMPATIBLE EXTERIORS
APX 500		PMLN5838	Hard Leather	3	Fixed		PMLN4474 PMLN4491 PMLN4493
		PMLN5842	Hard Leather	2.5	Swivel		PMLN4489 PMLN4448 NNTN8128
		PMLN5840	Hard Leather	3	Swivel		
		PMLN5844	Nylon	3	Fixed		
		PMLN6172	Nylon	Up to 5	Fixed	●	
APX 6000 APX 7000		NTN6266	Plastic	2.5			
APX 6000 APX 6000XE		HLN6875	Plastic	3			
APX 7000 APX 7000XE		HLN6502	Nylon				
APX 6000 APX 6000XE		RLN6570	Nylon				
APX 4000 APX 1000 APX 500		1505556702	Nylon				
		PMLN6511	Plastic				
		PMLN7008	Plastic				
		15012151001					

COMPATIBILITY		ACCESSORY		FEATURES	
CARRY SOLUTIONS					
PORTABLE RADIOS	DESCRIPTION	PART NUMBER	MATERIAL		
APX 500		PMLN5810	Hard Leather		
		PMLN5811	Hard Leather		
		PMLN5807	Hard Leather		
		PMLN5808	Hard Leather		
		PMLN5809	Hard Leather		
APX 6000 APX 7000XE		PMLN5800	Leather		
APX 6000 APX 7000 APX 7000XE		4200655599	Leather		
APX 6000 APX 6000XE APX 4000 SIR 2200		NTN6243	Nylon		
APX 6000 APX 6000XE APX 7000 APX 7000XE APX 4000 APX 3000 SIR 2200		RLN6486	Leather		
		RLN6487	Leather		
		AY000229A01	Leather		
		AY000229A01	Leather		
		RLN6488	Leather		

APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES													
ANTENNAS																	
PORTABLE (RADDS)		DESCRIPTION		PART NUMBER		USE (MHz) 700/800 MHz		FREQUENCY BAND (MHz)		INTEGRATED GPS		LENGTH (cm)		TYPE		REPLACE- CAPABLE	
APX 7000 APX 7000XE APX 6000 APX 6000XE APX 4000 APX 3000 APX 1000 SRX 2200				700/800 MHz, GPS Whip Antenna NAT50B5		700/800		764-870		●		20		Whip		UL	
				UHF, GPS Whip Antenna PMAA40B5		UHF		380-520		●		14.2		Whip		UL	
				VHF, GPS Whip Antenna NAT55B3		VHF		135-174		●		20		Whip		UL	
APX 4000				900 MHz, GPS Antenna PMAA40B8		800/900		895-941		●		5		Whip			
				800/900 MHz, GPS Combination Helical Antenna PMAA40C3		800/900		895-941		●		18		Helical		UL	
APX 8000 APX 6000XE APX 7000 APX 6000 APX 6000XE APX 4000 APX 3000 APX 1000				1/4 Wave, 700/800 MHz, GPS Stubby Antenna NAT55B5		700/800		764-870		●		9.8		Stubby		UL	
APX 8000				VHF, 700/800, UHF Range 1, UHF Range 2, GPS (radio only) K1000026A01		VHF 700/800				●				Whip		UL	
				VHF, 700/800 MHz, Dual Band, GPS Whip Antenna NAT55B4		VHF 700/800		135-174 764-870		●		20		Whip		UL	
APX 8000 APX 6000XE APX 7000 APX 7000XE				VHF, UHF, Dual Band, GPS Whip Antenna PMAA40C1		VHF UHF		135-174 380-520		●		21.8		Whip		UL	
				UHF, 700/800 MHz, Dual Band, GPS Whip Antenna PMAA50C1		UHF 700/800		380-520 764-870		●		19.7		Whip		UL	

† Please Double-Check for more information on which accessories are approved by Factory Mutual (FM) or Underwriters' Laboratory (UL) with certain APX models, please consult the manual provided with each radio or UL-approved APX products.

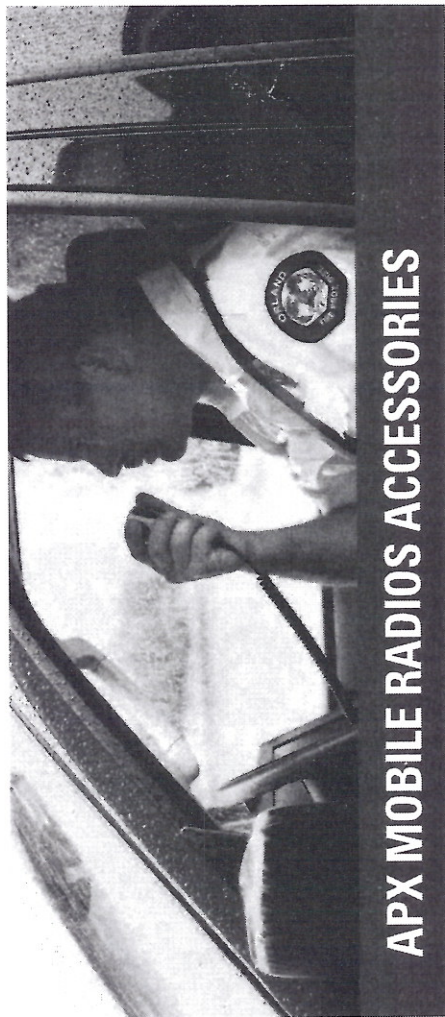
COMPATIBILITY		ACCESSORY	FEATURES							
ANTENNAS										
PORTABLE RADIOS		DESCRIPTION	PART NUMBER	USE (MHz)	FREQUENCY BAND (MHz)	ATTENUATION (dB)	LENGTH (cm)	TYPE	REPLACEABLE	
APX 900		UHF, Flexible Whip Antenna	PMAA40Z2	UHF	403-470		16	Flexible Whip	UL	
		VHF, 135-147 MHz, Stubby Antenna	PMAA40B3	VHF	135-147		11	Stubby	UL	
		VHF, 147-160 MHz, Stubby Antenna	PMAA40B4	VHF	147-160		11	Stubby	UL	
		VHF, 160-174 MHz, Stubby Antenna	PMAA40B5	VHF	160-174		11	Stubby	UL	
		700/800 MHz, Flexible Whip Antenna	NAT50B0	700/800	764-870		6.5	Flexible Whip		
		Coaxial Flexible Whip Antenna, 895-941 MHz	NAT50B8	900	895-941		7	Flexible Whip		
		VHF, 135-174 MHz, Flexible Whip Wideband Antenna	PMAA40B8	VHF	135-174		8.3	Flexible Whip	UL	
		700/800 MHz, Stubby Antenna	PMAA40Z2	700/800	764-870		9	Stubby		
APX 800		UHF, 380-470 MHz, Stubby Antenna	PMAA41C0	UHF	380-470		9	Stubby	UL	
		UHF, 450-527 MHz, Stubby Antenna	PMAA41C2	UHF	450-527		9	Stubby	UL	
		UHF, 420-445MHz, Stubby Antenna	PMAA40B4	UHF	420-445		4.5	Stubby		

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APX PORTABLE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY		FEATURES				
ANTENNAS		DESCRIPTION		PART NUMBER	USE VOLTAGE (VOLTAGE)	FREQUENCY BAND (MHz)	ANTENNA TYPE	ACTIVE CAPACITANCE (pF)
PORTABLE RADIOS								
APX 5000 APX 5000XE APX 6000 APX 1000		UHF Flange 1, GPS Stubby Antenna	FAN5259	UHF	380-470	9.3	Stubby	UL
		UHF Flange 2, GPS Stubby Antenna	FAN5260	UHF	470-520	9.3	Stubby	UL
		GPS Antenna (Directly connected to radio when a public safety microphone is used)	NAG4000	700/800		7	Stubby	
		700/800 Public Safety Microphone Only Stubby Antenna	PMAF4002	700/800	764-870	9	Stubby	
APX 1000 (700/800 MHz only) APX 5000 (700/800 MHz only)		Flexible Antenna with one flexible antenna spacer, 700/800 MHz	PMAF4006	700/800	764-870	41	Flexible	
		Flexible Antenna with three flexible antenna spacers, UHF	PMAF4080	UHF	308-470	77	Flexible	
		Flexible Antenna with two flexible antenna spacers, VHF	PMAF4125	VHF	135-174	44	Flexible	
		PROGRAMMING CABLES						
APX 5000XE APX 1000 APX 1000XE APX 6000 APX 6000XE APX 5000 APX 5000XE APX 1000 APX 1000XE SIX 2200				PMKN4013	Programming and Test Cable			
				PMKN4012	Programming Cable (Not compatible with APX 500)			

For more information on which accessories are approved by the Federal Aviation Administration (FAA) for use in aircraft, please consult the manual provided with each APX model or call 1-800-APX-1000.



APX MOBILE RADIOS ACCESSORIES

COMMUNICATE SAFELY AND EASILY WHEREVER YOU GO

You count on your mobile radio to function clearly and easily so you can concentrate on the mission and communicate safely.

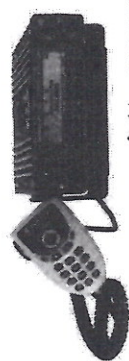
Get the most out of your APX radio by extending its power and reliability with APX accessories. Every mobile microphone, speaker, alarm and control station accessory is best-in-class technology, designed and optimized specifically for your APX mobile. There's simply no substitute for APX accessories.



APX 8500 WITH
03 CONTROL HEAD



APX 7500 WITH
07 CONTROL HEAD



APX 6500 WITH
05 CONTROL HEAD



APX 4500 WITH
02 CONTROL HEAD



APX 1500 WITH
02 CONTROL HEAD

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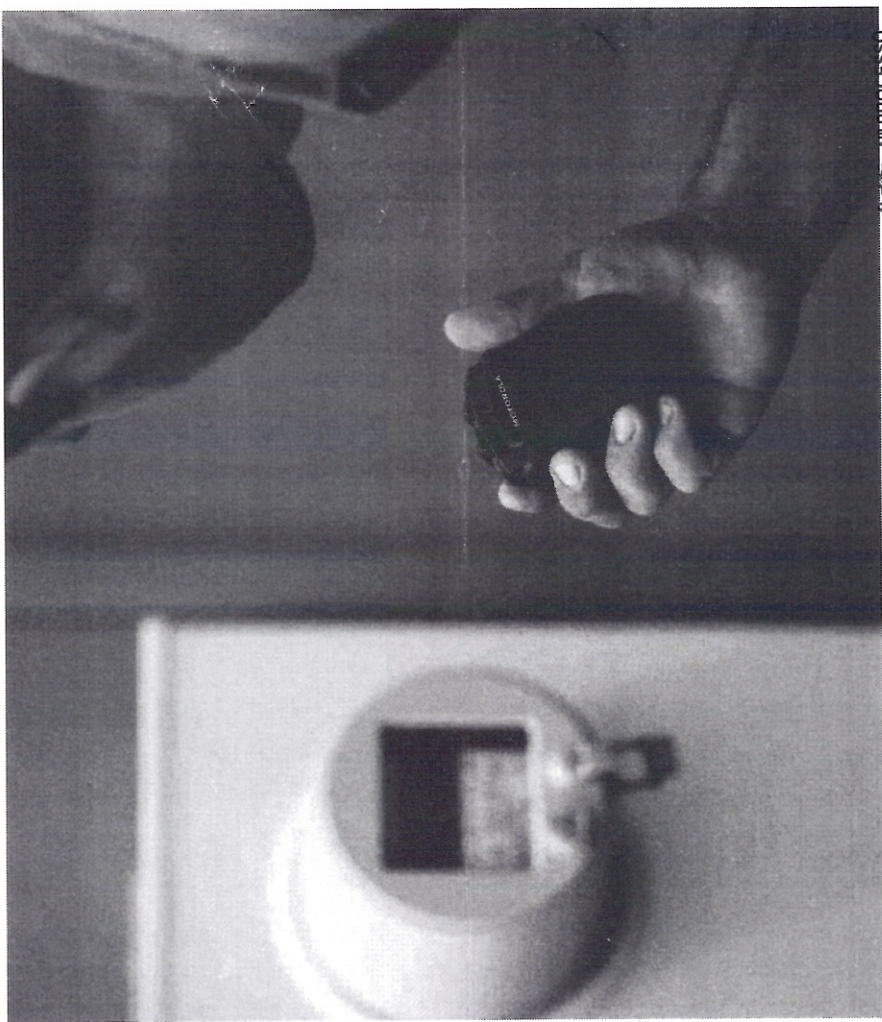
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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	PART NUMBER
LONG RANGE WIRELESS	get ready in seconds without having to worry about the wires getting in the way. No more getting tangled with your seatbelt. Work, safer, smarter and more comfortable in demanding environments.	
PORTABLE RADIOS	DESCRIPTION	
APX 800 SERIES APX 700 SERIES APX 600 SERIES APX 400 SERIES APX 100 SERIES	Long Range Wireless Mobile Accessory Kit, includes Wireless Remote Speaker Microphone (RLN654L), Mobile Microphone Bluetooth Gateway (PMMN4097C), Vehicular Charger (PMMN6716)	RLN6551
	Long Range Wireless Mobile Accessory Kit (No Power Charger), includes Wireless Remote Speaker Microphone (RLN654L), Mobile Microphone Bluetooth Gateway (PMMN4097C), Charger must be purchased separately	RLN6552
ACCESSORIES AND REPLACEMENT PARTS		
	Dual Unit Charger, Rapid Rate Charger, 120V	PALN7120
	Vehicular Charger	PALN6716
	Wireless RSM with Battery and Clip	RLN6544
	Mobile Microphone with Bluetooth Gateway	PMMN4097
	Wireless RSM Battery, 1750 mAh Li-Ion	PMMN4461
	D Ring Swivel Clip (12 pack)	NNTN4990
	Receive-Only Earpiece with Comfort Earbuds, FM and UL approved*	RLN4941
	Receive-Only Earpiece with Comfort Earbuds	PMLN7580
	Receive-Only Earbud, FM and UL approved	AALN4485
	SP7 Sonic Defender, use with RLN4941	RLN6511 RLN6512 RLN6513

* Please consult the manual for more information on which accessories are approved by Factory Mutual (FM) as Underwriters' Laboratory (UL) with certain APX models, please consult the manual provided with each FM or UL approved APX portable.



LONG RANGE WIRELESS REMOTE SPEAKER MICROPHONE (RSM)

The Long Range Wireless Remote Speaker Microphone (RSM) pairs instantly with touch pairing to the radio or a separate microphone with Bluetooth gateway. The Long Range Wireless RSM works up to 100 meters away line-of-sight from the mobile radio, keeping you in communication where you never thought possible. Plug and play – Just attach the mobile gateway microphone to your radio, align the two devices where indicated by the blue dot and you are ready to go. Voice prompts will walk you through pairing quickly.

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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	FEATURES		
MICROPHONES Access critical features directly on the Keypad microphone. Navigational buttons and a full keypad allow users to navigate radio menus, dial phone numbers and send text messages. Three programmable buttons are available for additional customization.				
MOBILE RADIOS	DESCRIPTION	PART NUMBER	MICROPHONE TITLE	IMAGE
APX 800 SERIES APX 700 SERIES		HMN1079	Standard	
		HMN1079	Keypad + Navigation	
APX 800 SERIES		HMN1090	Standard	
		HMN1089	Standard	
APX 700 SERIES		HMN1097	Telephone + Keypad	
		HKN1019	Telephone	
APX 600 SERIES		HLN1457	Telephone	
		RMN5070	Desktop	
APX 100 SERIES		RMN5054	Visor	

IMPRES AUDIO ACCESSORIES

Mission critical voice transmissions have to be heard over engine, siren, road and wind noise. Fortunately, Motorola's exclusive IMPRES audio accessories are designed to optimize the output based on the accessories in use. IMPRES Visor Microphones are able to pick up and transmit the user's voice consistently to the receiving user regardless of how close they are speaking into the microphone.



COMPATIBILITY	ACCESSORY	PART NUMBER
MOBILE MICROPHONE ACCESSORIES		
MOBILE RADIOS	DESCRIPTION	PART NUMBER
APX 800 SERIES APX 700 SERIES APX 600 SERIES APX 500 SERIES APX 100 SERIES		HLN5391
		PMKN1083
		PMKN1023
		PMKN1024
		HLN5131
APX 800 SERIES APX 700 SERIES APX 600 SERIES APX 500 SERIES APX 100 SERIES		HLN5113
		GLN7778
		RLN5526
		307536810
		KT000254A01
CONTROL STATION ACCESSORIES		
APX 600 SERIES		HPN1007
APX 600 SERIES APX 500 SERIES APX 100 SERIES		HLN6042
APX 600 SERIES APX 500 SERIES APX 100 SERIES		308065404



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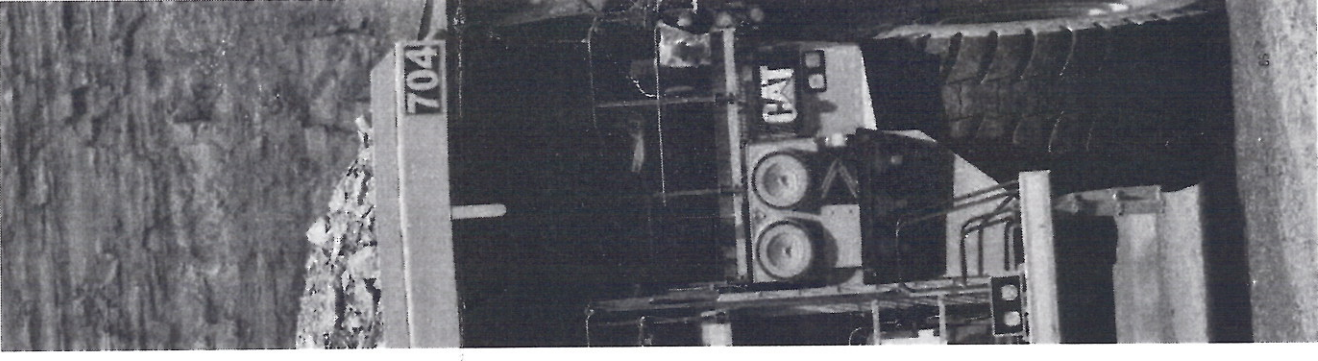
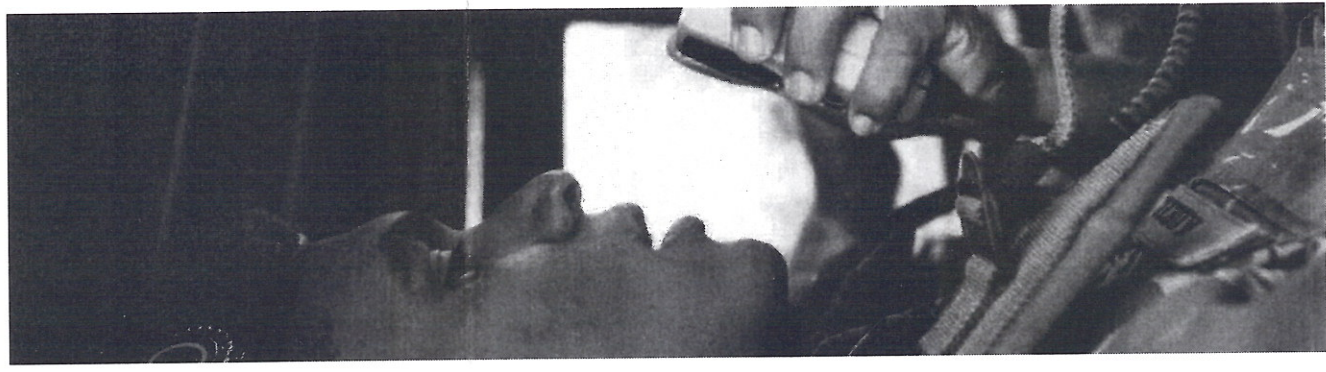
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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	PART NUMBER
INSTALLATION AND MOUNTING ACCESSORIES Mount your radio in your vehicle without compromising safety. Trunion Kits give you the flexibility to install the radio under your dash, in the trunk, or on the floor. Remote mount kits allow the radio to be mounted in the trunk when dash space is limited.		
MOBILE RADIOS	DESCRIPTION	PART NUMBER
 APX 6000 SERIES  APX 7500 SERIES  APX 6500 SERIES  APX 4500 SERIES  APX 1500 SERIES	 High Power Trunion Kit, Quick Release with Lock	HLN7003
	 Mid Power Trunion Kit, Standard Installation Bracket	HLN7002
	 Mid Power Trunion Lock	HLN6372
	 Remote Mount Control Head Trunion Compatible with 112/105 and U7 control heads	HLN6106
	 Low Profile Remote Mount Control Head Trunion Kit	HLN7031
	 Motorcycle Enclosure, Black	HLN7022
COMPATIBILITY	ACCESSORY	PART NUMBER
EXTERNAL ALARM ACCESSORIES External alarm accessories enable additional switching power when external accessories are attached.		
MOBILE RADIOS	DESCRIPTION	PART NUMBER
 APX 6000 SERIES  APX 7500 SERIES  APX 6500 SERIES  APX 4500 SERIES  APX 1500 SERIES	 External Alarm Relays	HLN6569



COMPATIBILITY	ACCESSORY	PART NUMBER
SPEAKERS Boost audio at your control station on your desk or in your vehicle with external speakers.		
MOBILE RADIOS	DESCRIPTION	PART NUMBER
 APX 6000 SERIES  APX 7500 SERIES  APX 6500 SERIES  APX 4500 SERIES  APX 1500 SERIES	 Remote Mount, Water Resistant Speaker, 7.5 Watt Rated Audio	HSN4038
	 Remote Mount, Water Resistant Speaker, 15 Watt Rated Audio	HSN4040
	 Non-Water Resistant Speaker, 13 Watt Rated Audio	HSN4032
	 Covert 10 Watt Tuned Audio Speaker	HSN4042
	 Siren Speaker, Round with Chrome Finish	TDN6251
	 Siren Speaker, Rectangular with White Finish	TDN6252
	 Siren Speaker, Round with Grey Finish	TDN6254
	 Siren Speaker, Under Hood with Grey Finish	TDN6253
COMPATIBILITY	ACCESSORY	PART NUMBER
UNIVERSAL RELAY CONTROLLER		
MOBILE RADIOS	DESCRIPTION	PART NUMBER
 APX 6000 SERIES  APX 7500 SERIES  APX 6500 SERIES  APX 4500 SERIES  APX 1500 SERIES	 Universal Relay Controller for CB Control Head, 10 DC Outputs, 15 Amps per Channel	PMUN1046
	 Universal Relay Controller to Transceiver Cable	3094153105



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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY
MOBILE SIREN	
MOBILE RADIOS	DESCRIPTION
	Siren
DDN1542	
	Siren Install Hardware
DDN1543	
	Siren to Radio Cable
DDN1883	
	03 Siren to CLK Cable
DDN1545	

APX 7500 SERIES
APX 6500 SERIES
APX 4500 SERIES
APX 1500 SERIES

COMPATIBILITY	ACCESSORY
SIREN ACCESSORIES	
MOBILE RADIOS	DESCRIPTION
	Siren Switchbox
H1N819	
	Wire Harness for Siren Switchbox. Needed to connect H1N819 to DDN1774
DDN1886	
	Mode Direct Entry Keypad, 8-Buttons
H1825	
	Siren Cable, 03 Siren to Switchbox
HKN6146	
	Siren Cable, 05 Siren to Switchbox
HKN4363	
	Siren Cable, Direct Keypad for 03 Control Head
HKN6145	

APX 7500 SERIES
APX 6500 SERIES
APX 4500 SERIES
APX 1500 SERIES



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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	DESCRIPTION	PART NUMBER
CABLES			
MOBILE RADIOS	CONTROL HEAD CABLES		
 APX 7500 SERIES APX 6500 SERIES APX 4500 SERIES APX 1500 SERIES		03 Handheld Control Head Extension Cable, 17-Foot	PM1M4958
		03 Handheld Control Head Accessory Cable	PM1M4959
		Control Head Cable with Connections for Power, Speaker and Headset Jack	HKM6187
		Control Head Cable with Connections for Power and Speaker	HKM6188
REMOTE MOUNT CABLES			
 APX 7500 SERIES APX 6500 SERIES APX 4500 SERIES APX 1500 SERIES		Remote Mount Cable, 131-Foot	HKM6164
		Remote Mount Cable, 115-Foot	HKM6165
		Remote Mount Cable, 75-Foot	HKM6166
		Remote Mount Cable, 59-Foot	HKM6167
		Remote Mount Cable, 30-Foot	HKM6168
		Remote Mount Cable, 17-Foot	HKM6169
		Remote Mount Cable, 10-Foot	HKM6170
		Cable, Remote Control Head Vehicular Interface Port Connector for OS Control Head	HKM6195
		Cable, Remote Control Head Mobile Accessory Port Connector for OS Control Head	HKM6561
		Motorcycle Remote Cable for OS Control Head	3075217A02
KEYLOAD CABLES			
 APX 7500 SERIES APX 6500 SERIES APX 4500 SERIES APX 1500 SERIES		Keyloader Cable, KVL 3000 and KVL 4000	TKN0531
		Keyload Adapter for Mobile Microphone Port	HKM6182



COMPATIBILITY	ACCESSORY		
CABLES			PART NUMBER
MOBILE RADIOS	DESCRIPTION		
POWER CABLES			
 APX 7500 SERIES  APX 6500 SERIES  APX 4500 SERIES  APX 1500 SERIES		Mid Power, Dash Mount Power Cable, 10-Foot	HKM4191
		Mid Power, Remote Mount Power Cable, 20-Foot	HKM4192
		Mid Power, Rear Ignition Cable, Dash Mount	HLN6863
		High Power, Remote Mount Power Cable 20-foot	HKM6110
		Motorcycle Power Cable	HKM6032
DATA CABLES			
 APX 7500 SERIES APX 7500 SERIES APX 6500 SERIES APX 6500 SERIES APX 4500 SERIES	Data Cable connects APX 6500 to Siren and DVHS MSU support with J600 port adapter		CB000409A01
	Data Telemetry Cable, required to connect to VML or certified data modem		K1000252A01
		RS232 Cable for Rear Accessory Port, Dash Mount Only, 6-Foot	HKM6160
		RS232 Cable for Rear Accessory Port, Remote Mount Only, 20-Foot	HKM6161
 APX 7500 SERIES APX 6500 SERIES APX 4500 SERIES APX 1500 SERIES		RS232 Cable for Mobile Microphone Port	HKM6183
		RS232 Cable for J600 Transceiver Interconnect Board, 22-Foot	HKM6122
PROGRAMMING CABLES			
 APX 7500 SERIES APX 6500 SERIES APX 6500 SERIES APX 4500 SERIES APX 1500 SERIES	USB Cable, Rear Accessory Port, Remote Mount, 15-Foot (for use with customer program software)		HKM6172
	USB Cable, Rear Accessory Port, Dash Mount, 6-Foot (for use with customer program software)		HKM6183
		Programming Cable	HKM6184


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For optimum range and quality, it is important to match the mobile radio's frequency with the proper Motorola antenna. These are available as standard 1/4 wave models or can include 3dB, 3.5dB or 5dB signal gain.

APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	FEATURES			
ANTENNAS A variety of antennas ensure the best possible reception wherever you operate. Choose from antennas with integrated GPS to standalone RF antennas.					
MOBILE RADIOS	DESCRIPTION	PART NUMBER	UHF / VHF BAND (MHz)	FEATURES	MOUNTING STYLE
APX 8500 MOTORCYCLE ANTENNAS					
 APX 8500 SERIES	All Band Mobile Antenna	AN000131A01			Through-hole
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 135-144 MHz, No Tuning Required	AN000197A01	VHF	135-144	Motorcycle
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 144-150.8 MHz, No Tuning Required		VHF	144-150.8	Motorcycle
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 150.8-162 MHz, No Tuning Required	AN000197A03	VHF	150.8-162	Motorcycle

COMPATIBILITY		ACCESSORY		FEATURES	
ANTENNAS					
MOBILE RADIOS	DESCRIPTION	PART NUMBER	UHF / VHF BAND (MHz)	FEATURES	MOUNTING STYLE
APX 8500 MOTORCYCLE ANTENNAS					
APX 8500 SERIES	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 162-174 MHz, No Tuning Required	AN000197A04	VHF	162-174	Motorcycle
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 380-433 MHz, No Tuning Required	AN000197A05	UHF	380-433	Motorcycle
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 425-470 MHz, No Tuning Required	AN000197A06	UHF	425-470	Motorcycle
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 450-482 MHz, No Tuning Required	AN000197A07	UHF	450-482	Motorcycle



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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY	ACCESSORY	FEATURES			
ANTENNAS		PART NUMBER	UHF VHF / REVERSE	REQUIRED EQUIPMENT	
MOBILE RADIOS		MOUNTING STYLE			
APX 6500 MOTORCYCLE ANTENNAS					
	Motorcycle Mount, 1/4 Wave Whip Antenna with OMA Connector, 482-520 MHz, No Tuning Required	AN00019/A0B	UHF	482-520	Motorcycle
	Motorcycle Mount, Low Profile, Unity Gain Antenna with OMA Connector, 450-512 MHz, No Tuning Required	AN00019/A09	UHF	450-512	Motorcycle
	Motorcycle Mount Antenna with OMA Connector, 348 Gain, 762-870 MHz	AN00019/A10	800/900	762-870	Motorcycle
	Motorcycle Mount, Low Profile Antenna with OMA Connector, 348 Gain, 762-870 MHz	AN00019/A11	800/900	762-870	Motorcycle

COMPATIBILITY		ACCESSORY	FEATURES		MOUNTING STYLE
MOBILE RADIOS		DESCRIPTION			
APX 6500 ANTENNA MULTIPLEXERS AND ADAPTERS					
	Vehicle Multiplexer (supports HF)	EQ000103A02	Motorcycle Multiplexer (low power)	CB0000091A03	Through-hole
	Mini U to OMA Adapter 12"	CB0000091A02	OMA to OMA Adapter 12"	CB0000091A01	Through-hole
	SMA to OMA Adapter 12"	CB0000091A01			Through-hole

COMPATIBILITY	ACCESSORY	FEATURES			
ANTENNAS					
MOBILE RADIOS	GEAR IDENT.	PART NUMBER	UHF VHF / REVERSE	MOBILE RADIO BAND RANGE	MOUNTING STYLE
VHF ANTENNAS (RF ONLY)					
 APX 6500 SERIES  APX 1500 SERIES  APX 6000 SERIES  APX 6000 SERIES  APX 1500 SERIES	 	HAD4006	VHF	136-144	Through-hole
		HAD4007	VHF	144-150.8	Through-hole
		HAD4008	VHF	150.8-162	Through-hole
		HAD4009	VHF	162-174	Through-hole
		HAD4016	VHF	136-162	Through-hole
		HAD4017	VHF	146-174	Through-hole
		HAD4021	VHF	136-174	Through-hole
		HAD4022	VHF	136-174	Through-hole
		UHF ANTENNAS (RF ONLY)			
		HAE012	UHF	380-433	Through-hole
 APX 6500 SERIES APX 6500 SERIES APX 6500 SERIES APX 1500 SERIES		HAE003	UHF	450-470	Through-hole
		HAE004	UHF	470-512	Through-hole

*ENCLOSURE - Mini-U to OMA adapter required for APX 6500 to antenna connection

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APX MOBILE RADIO ACCESSORIES

COMPATIBILITY		ACCESSORY	FEATURES		
ANTENNAS			FAST NUMBER	UPPER FREQUENCY RANGE	INSTALLING STYLE
MOBILE RADIOS		DESCRIPTION			
UHF ANTENNAS (RF ONLY)					
 APX 6000 SERIES  APX 5000 SERIES  APX 4000 SERIES  APX 3000 SERIES		UHF 3 dB Gain Antenna, 494-512 MHz	HA-E013	UHF	Through-hole
		UHF 3.5 dB Gain Antenna, 380-420 MHz MAXRAD	HA-E010	UHF	Through-hole
		UHF 3.5 dB Gain Antenna, 470-485 MHz	HA-E011	UHF	Through-hole
		UHF 3.5 dB Gain Antenna, 450-470 MHz	HA-E012	UHF	Through-hole
		UHF 5 dB Gain Antenna, 380-420 MHz MAXRAD	HA-E011	UHF	Through-hole
		UHF 5 dB Gain Antenna, 455-470 MHz	HA-E014	UHF	Through-hole
		UHF 5 dB Gain Antenna, 470-494 MHz	HA-E015	UHF	Through-hole
		UHF 5 dB Gain Antenna, 494-512 MHz	HA-E016	UHF	Through-hole
		UHF 2 dB Gain Wideband Antenna, 380-470 MHz, MAXRAD	HA-E013	UHF	Through-hole
		UHF 2 dB Gain Wideband Antenna, 450-512 MHz	HA-E015	UHF	Through-hole
		UHF 2 dB Gain Wideband Antenna, 380-520 MHz	HA-E031	UHF	Through-hole
		UHF Wideband Low Profile Antenna, 450-512 MHz	HA-E016	UHF	Through-hole

*MAX940 - Max-U is DPA adapter required for APX 6000 in antenna connection.

COMPATIBILITY	ACCESSORY	FEATURES		
ANTENNAS				
MOBILE RADIOS	D155-8-170A	1/4 WAVE ANTENNA	762-870 MHz	762-870 MHz
700/800 MHz ANTENNAS (RF ONLY)				
		1/4 Wave Antenna, 762-870 MHz	762-870	Through-hole
APX 6500 SERIES*		3 dB Gain Low Profile Antenna, 762-870 MHz	762-870	Through-hole
APX 7500 SERIES		3 dB Gain Elevated Feed Antenna, 762-870 MHz	762-870	Through-hole
APX 6500 SERIES		3 dB Gain Collinear Antenna, 762-870 MHz	762-870	Through-hole
APX 6000 SERIES				
APX 4000 SERIES				
APX 1500 SERIES				

*ELEVATED FEED - Max-U is DPA adapter required for APX 6000 in antenna connection.



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COMPATIBILITY	ACCESSORY	FEATURES
ANTENNAS		
MOBILE RADIOS	DISCREETION	PART NUMBER
		FREQUENCY RANGE (MHz)
		MOUNTING STYLE
GPS / WII-PI ANTENNAS		

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GLOSSARY

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For more information on which accessories are approved by Factory Mutual (FM) or Underwriters' Laboratory (UL) with certain APX models, please consult the manual provided with each FM- or UL-approved APX portable. Motorola-approved accessories are a critical part of the overall radio system intrinsic safety certification. Non-Motorola approved accessories may not be certified for APX and if used, could result in equipment that is NOT approved and unsafe in a hazardous environment.

IP RATING

International Protection (IP) is a global standard for rating dust and water protection. The first digit IP5x or IP6x represents increased levels of dust protection. The second digit, IPx7 or IPx8 represents increased levels of water protection.

- **IPx7** represents withstanding submersion in 1 meter of fresh water for 30 minutes.
- **IPx8** represents heating accessory to 27°C higher than the water temperature for 2 hours then immediately immersing it to a depth of 1 meter for another 2 hours.
- **IPx8-Rugged** represents exceeding industry specs by heating accessory to 27°C higher than the water temperature for 2 hours then immediately immersing it to a depth of 2 meters for another 4 hours.

MICROPHONE NOISE SUPPRESSION
Multi Mic Noise Suppression: Five integrated microphones and Adaptive Audio Engine automatically change the level of noise suppression, microphone gain, windproofing and speaker equalization to produce clear and loud audio in any environment.

Dual Mic Noise Suppression: Dual-microphone design tracks your voice so that you can keep your eye on what's in front of you while speaking. A digital signal processor (DSP) algorithm helps suppress background noise so you can be heard clearly regardless of the noise around you.

Windproofing (Motorola Exclusive):

Windproofing reduces the effect of wind and other outdoor noises on your microphone performance and prevents water from clogging the microphone and distorting your transmission.

Noise-cancelling microphones negate crowd or machinery noise so your voice comes through loud and clear anytime you speak directly into the microphone.

SWIVEL OR FIXED LOOP

Secure to a belt loop and the case swings freely from side to side. The swivel latch system also allows the radio and case to be removed from the belt loop by simply inverting, lifting it up and out of the belt loop. Fixed loops provide a sturdy attachment to your belt.



Nº PROCESSO

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1679

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[Signature]



For more information on Motorola mission critical accessories,
visit motorolasolutions.com/apx.



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. motorolasolutions.com

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AP20000 - ANTENA BASE VHF DIRECIONAL TIPO YAGI 3 ELEMENTOS

Fls. Nº 2681

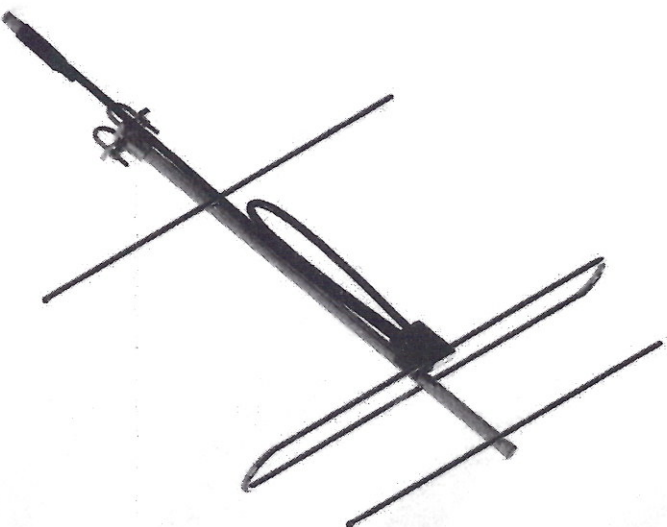
77843380

Nº PROCESSO



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27/07/2018



steelbras[®]
soluções em antenas

ANTENA BASE VHF DIRECIONAL TIPO YAGI 3 ELEMENTOS | AP20000

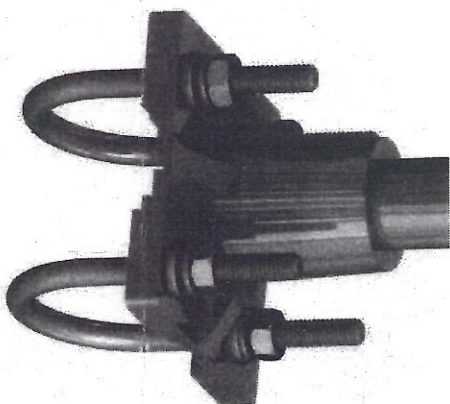
A **AP20000** é uma antena VHF tipo YAGI construída em alumínio de alta qualidade, resina epóxi e borracha resistente a ozônio, intempéries e produtos químicos.

Antena de fácil instalação por ser leve, não necessita de ajuste e possui conector UHF Fêmea de padrão internacional, além de um suporte versátil que permite instalação na posição vertical ou horizontal.

O conjunto do irradiante é hermeticamente fechado com resina resistente a condições climáticas severas, o que garante um perfeito funcionamento, vida útil elevada e alta resistência mecânica.

O Suporte em alumínio foi projetado para que a fixação da antena possa ser realizada tanto no sentido horizontal como no vertical.

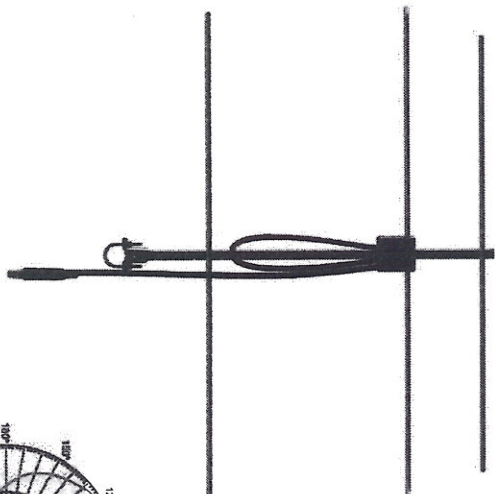
Fls. Nº *1682*
77843380
OSS300d n
GECON/SESP
Rubr.



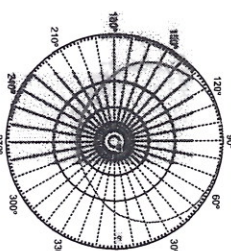
Os grampos para fixação, são confeccionados em aço inox, acompanham arruela lisa, arruela de pressão e porca também em aço inox, para uma perfeita fixação do suporte em tubos de até 35 mm de diâmetro externo, garantindo maior vida útil ao conjunto.



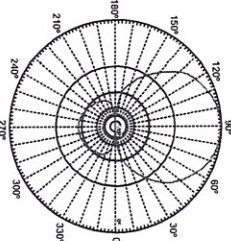
ANTENA BASE VHF DIRECIONAL TIPO YAGI 3 ELEMENTOS | AP20000



100%
Construída
com material
não-ferroso



Vertical



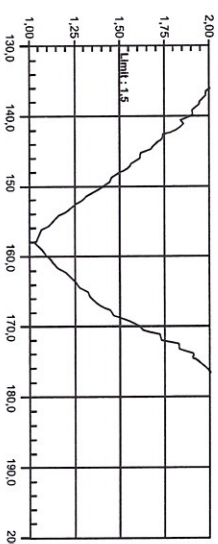
Horizontal

ESPECIFICAÇÕES:

Frequência.....	: 144-174MHz
Potência.....	: 200 Watts
Impedância.....	: 50 Ohms
VSWR.....	: ≤ 1,8:1
Relação frente costa.....	: ≥ 17
Polarização.....	: Vertical / Horizontal
Ganho.....	: 4 dB / 6,15 dBi
Conector.....	: UHF Fêmea
Vento Máximo.....	: 120 km/h
Comprimento.....	: 670 mm
Largura.....	: 880 mm
Peso.....	: 2,650Kg

EXEMPLO:

Veja ao lado o gráfico de R.O.E.



Product Data Sheet

SAP 16822111



Rubr. 141



RadioFlex RGC 213 - 50 Ω, Preto

Descrição do produto

Cabo RadioFlex RGC 213, impedância de 50 Ω com capa na cor preta.

Aplicação:

TV via cabo (CATV/CCTV);
VHF e UHF;
Sistemas de telefonia;
Teleinformática;
Rádio e TV.



Illustrative photo

Características/ Benefícios

Modelo RFS	RGC213-50J
Especificado segundo as normas	Resolução ANATEL 382

Especificações Técnicas

Tipo de cabo	RadioFlex	
Condutor interno [mm (in)]	Cobre nú	2.55 (0.100)
Isolamento [mm (in)]	Polietileno expando	7.25 (0.285)
Condutor externo [mm (in)]	1º Blindagem: Fita de poliéster aluminizada 2º Blindagem: Trança de cobre estanhado	7.75 (0.305)
Cobertura	78%	
Capa [mm (in)]	PE	10.15 (0.400)
Cor da capa	Preto	

Características Mecânicas

Peso	[kg/m (lb/ft)]	0.115 (0.077)
Raio de curvatura mínimo	[mm (in)]	50 (1.97)
Raio de curvatura mínimo, repetidas dobras	[mm (in)]	205 (8.07)

Características Elétricas

Característica da impedância	[Ω]	50
Velocidade de propagação relativa	[%]	82
Capacitância	[pF/m]	82
Resistencia DC do condutor interno	[Ω/km]	3.5
Resistencia DC do condutor externo	[Ω/km]	11.1
Resistencia de isolamento	[MΩ.km]	5000
Teste de voltagem	[kV (CA / 1 min.)]	1

Temperatura Recomendada

Temperatura Ambiente	[°C]	80
----------------------	------	----

Características de propagação

Atenuação	Frequência (MHz)	dB/100 metros
	10	1.6
	30	2.3
	50	2.9
	100	4.1
	400	8.9
	1000	14.9

RFS The Clear Choice®

SAP 16822111

Print Date:
30/11/2016Please visit us on the internet at <http://www.rfsworld.com/>

Product Data Sheet

SAP 75205677

PROCESSO



Rubr.



RadioFlex RG 58 EVO- 50 Ω, Preto

Descrição do produto

Cabo RadioFlex RG 58 EVO, impedância de 50 Ω com capa na cor preta.

Aplicação:

Sistemas de radiocomunicação;
Sistemas auxiliares de radiofusão
Telefonia rural;
Informática;
Instalações militares.



Illustrative photo

Características/ Benefícios

Modelo RFS	RG58 EVO - 50Ω - PT
Especificado segundo as normas	Resolução ANATEL 470 ABNT NBR-6244

Especificações Técnicas

Tipo de cabo	RadioFlex	
Condutor interno [mm (in)]	Corda de cobre estanhado, 19 x 0.18 mm	0.90 (0.035)
Isolamento [mm (in)]	Polietileno	2.90 (0.114)
Condutor externo [mm (in)]	Trança de cobre nú	3.30 (0.130)
Cobertura	85%	
Capa [mm (in)]	PVC	4.95 (0.195)
Cor da capa	Preto	

Características Mecânicas

Peso	[kg/m (lb/ft)]	0.033 (0.022)
Raio de curvatura mínimo	[mm (in)]	25 (0.984)
Raio de curvatura mínimo, repetidas dobras	[mm (in)]	100 (3.937)

Características Elétricas

Característica da impedância	[Ω]	50
Velocidade de propagação relativa	[%]	66
Capacitância	[pF/m]	101
Resistencia DC do condutor interno	[Ω/km]	39.0
Resistencia DC do condutor externo	[Ω/km]	17.90
Resistencia de isolamento	[MΩ.km]	10000
Teste de voltagem	[kV (CA / 1 min.)]	7.5

Temperatura Recomendada

Temperatura Ambiente	[°C]	80
----------------------	------	----

Características de propagação

Atenuação	Frequência (MHz)	dB/100 metros
	10	4.8
	30	8.5
	50	10.9
	100	15.6
	400	34.0
	1000	61.0

RFS The Clear Choice ®

SAP 75205677

Print Date:
30/11/2016

NA-95

O centelhador a gás NA-95 oferece ao seu sistema de radiocomunicação grande proteção contra surtos de origem atmosférica, aumentando a confiabilidade e diminuindo a degradação do sistema.

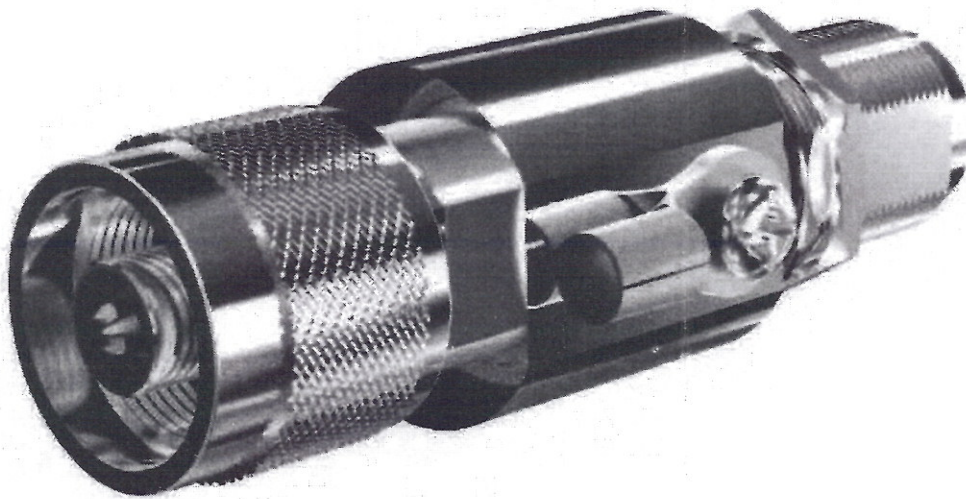
O dispositivo é composto de uma cápsula cerâmica substituível e lacrada hermeticamente com gás inerte.

As cargas eletrostáticas e/ou transientes de potencial elevado são rapidamente descarregados protegendo assim os equipamentos de radiocomunicação.

Sua construção robusta e o uso de materiais de ótima qualidade, garantem máximo desempenho mesmo na presença de umidade e variações bruscas de temperatura.

Código	Modelo	Faixa
508092	NA-95	0 ~ 6.0 GHz

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GECON/SESP
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ESPECIFICAÇÕES ELÉTRICAS

VSWR	$\leq 1,3 : 1$
Impedância Nominal	50 Ω
Potência Máxima	150 Watts
Perda Máx. por inserção	$\leq 0,5$ dB
Corrente Máxima	10 KA
Resistência de isolamento	≥ 1000 m Ω
Tensão de ruptura do tubo	≤ 700 V DC
Tensão típica	230V DC ~20%
Faixa de frequência	0 ~ 6.0 GHz
Tensão máx. de operação	50V
Tensão de disparo sob impulso	(1kV/us): <600V
Tensão de Clamping	(100 V/s): 90 $\pm$ 18V

ESPECIFICAÇÕES MECÂNICAS

Comprimento total	68 mm
Temperatura	-40 / +70 C°
Terminações	N Macho / N Fêmea
Acabamento	Prata / Níquel
Diâmetro Máximo	30 mm
Peso	0,125 Kg

CENTELHADORES A GÁS
(0 ~ 6.0 GHz)



NM-51CR

Conector N macho reto pino fixo crimp, para cabo RG-58.

Fis. Nº 1686

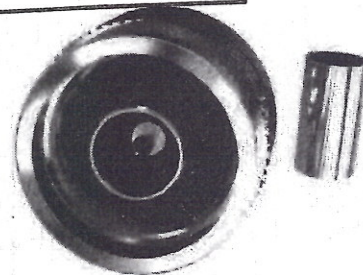
CONECTOR

Nº PROCESSO

77843380



GECONISESP
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Código	Modelo
508089	NM-51CR

ESPECIFICAÇÕES MECÂNICAS

Família	N macho
Formato	Reto
Fixação do Cabo	Crimp
Tipos de cabos	RGU-58
Pino de contato	Latão com banho de ouro
Isolação	PTFE
Vedação	Borracha
Outros componentes	Latão com banho de níquel

ESPECIFICAÇÕES ELÉTRICAS

Impedância	50 Ω
VSWR	$\leq 1,3$ até 4 GHz
Perda de retorno	18 dB até 4 GHz
Perda de inserção	0,15 dB até 4 GHz
Temperatura de operação	- 65°C a 155°C

Introduza a bucha crimp no cabo

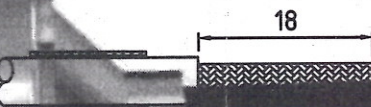


Remova 11.8 mm da blindagem expondo o dielétrico.

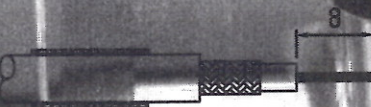


Introduza o corpo crimp entre a blindagem e o dielétrico. Certifique que nenhum fio da blindagem esteja dentro do conector. Solde o condutor central ao pino de contato através do furo.

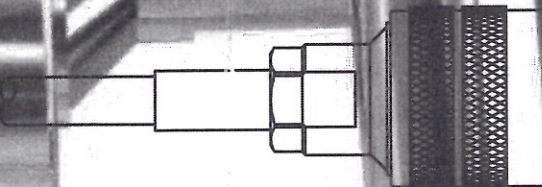
Soldar



Remova 18 mm de capa preta expondo a blindagem.



Remova 8 mm do dielétrico expondo o condutor central.



Rosqueie a parte montada no corpo do conector. Com o auxílio de uma chave fixa de 10 mm e uma de 18" dê o aperto. Posicione a bucha crimp até que ela encoste no corpo crimp. Realize a crimpagem com auxílio de um alicate crimp Nº 213.

IMAGENS MERAMENTE ILUSTRATIVAS

N - macho



NM-33C

Conector N macho reto prensa cabo, para cabo RG-213/RGC-213.

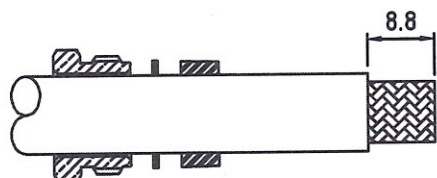
Código	Modelo
508010	NM-33C

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77843380
Nº PROCESSO
GECON/SESP
Rubr. 

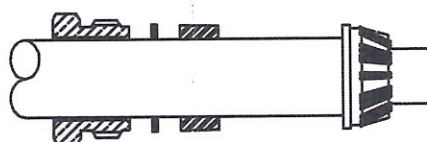


ESPECIFICAÇÕES MECÂNICAS	
Família	N macho
Formato	Reto
Fixação do Cabo	Prensa cabo
Tipos de cabos	RGC-213, RGC-213 CCA, RGU-213
Pino de contato	Latão com banho de ouro
Isolação	PTFE
Vedação	Borracha
Outros componentes	Latão com banho de níquel

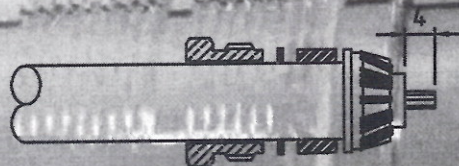
ESPECIFICAÇÕES ELÉTRICAS	
Impedância	50 Ω
VSWR	$\leq 1,3$ até 4 GHz
Perda de retorno	18 dB até 4 GHz
Perda de inserção	0,15 dB até 4 GHz
Temperatura de operação	- 65°C a 155°C



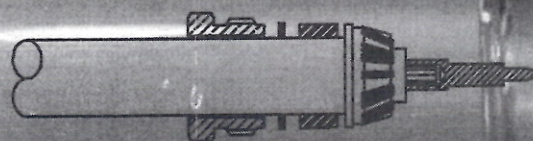
Introduza no cabo a porca redutora, a arruela de encosto e a bucha prensa cabo. Remova 8,8 mm da capa preta expondo a blindagem



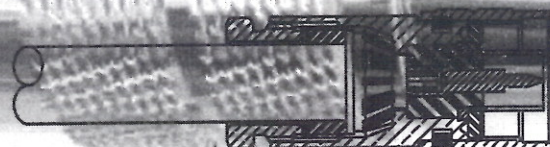
Introduza a bucha cônica até encostar na capa preta. Desfie a blindagem e envolva a bucha cônica sem ultrapassá-la.



Remova 4 mm do dielétrico expondo o condutor central e estanhe-o. Aproxime a bucha prensa cabo e a arruela de encosto da bucha cônica.



Solda o pino de contato no condutor central.



Introduza a parte montada no corpo do conector e com auxílio de duas fixas de 5/8", dê o aperto final.

N - macho



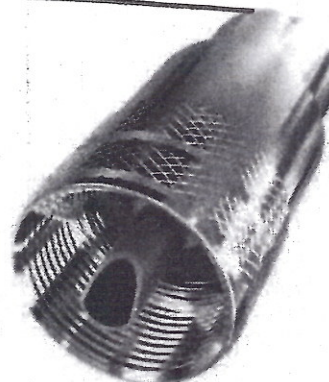
UM-1

Conector UHF macho reto cabo soldado, para cabo RG-213.

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77843380
Nº PROCESSO
GECON/SESP
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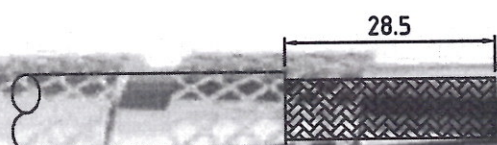
CONECTOR

Código	Modelo
507005	UM-1



ESPECIFICAÇÕES MECÂNICAS	
Família	UHF macho
Formato	Reto
Fixação do Cabo	Solda
Tipos de cabos	RGU-213
Pino de contato	Latão com banho de ouro
Isolação	PTFE
Vedação	Não se aplica
Outros componentes	Latão com banho de níquel

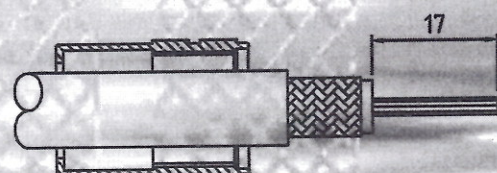
ESPECIFICAÇÕES ELÉTRICAS	
Impedância	50 Ω
VSWR	$\leq 1,3$: 1 até 300 MHz
Perda de retorno	18 dB até 300 MHz
Perda de inserção	0,15 dB até 300 MHz
Temperatura de operação	- 25°C a 70°C



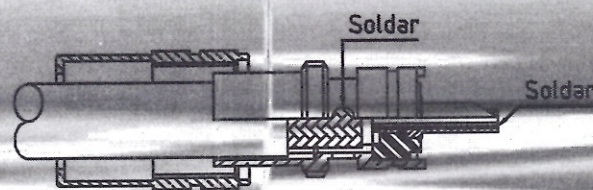
Remova 28,5 mm da capa preta expondo a blindagem. Estande-a.



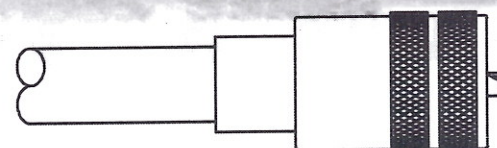
Remova 18,5 mm da blindagem expondo o dielétrico.



Remova 17 mm do dielétrico expondo o condutor central. Estande-o. Introduza a capa no cabo.



Introduza o cabo rosqueando no corpo do conector até o condutor central ficar rente ao pino de contato. Solde a blindagem no corpo através dos furos. Solde o condutor central no pino de contato.



Rosqueie a capa no corpo do conector.

Nota: Cuidado para a solda não ultrapassar o diâmetro do pino de contato, se isto ocorrer é necessário que o excesso seja removido.

UHF macho





Interface de Audio para Estação Fixa Fone/Pedal

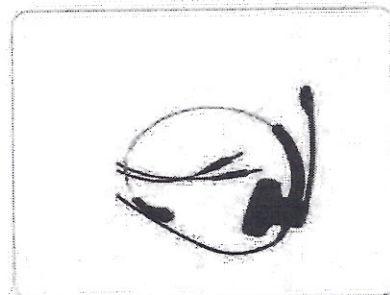
- . A Interface Fone/Pedal #150 tem como função permitir a operação do tipo "Mãos Livres" de uma Estação Fixa.
- . A Interface possui conexões para:
 - . Fone/Microfone Auricular (HeadSet);
 - . Pedal para Acionamento do Transmissor;
 - . Cabo para conexão da interface ao conector de acessórios do rádio que irá operar como Estação Fixa.
- . A Interface também possui controle de volume de recepção e tecla "PTT".
- . Compatível com a maioria dos rádios Digitais e Analógicos disponíveis no mercado, bastando informar o modelo do equipamento que será utilizado.

Itens da solução:

Interface #150



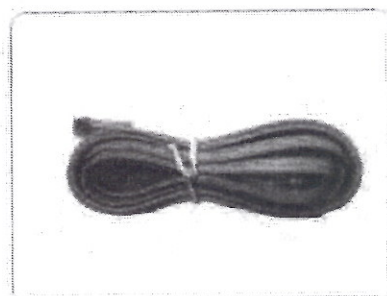
Fone/Microfone Auricular P2



Pedal de Acionamento do Transmissor



Cabo de Conexão



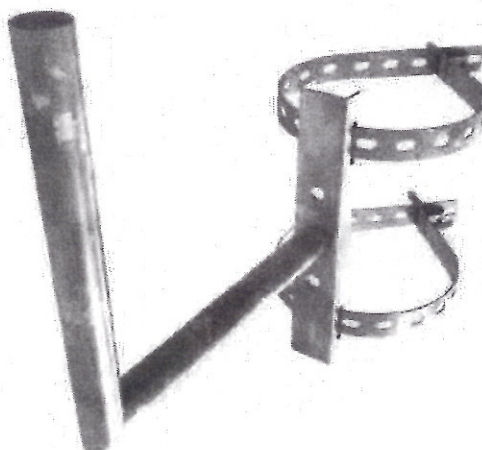
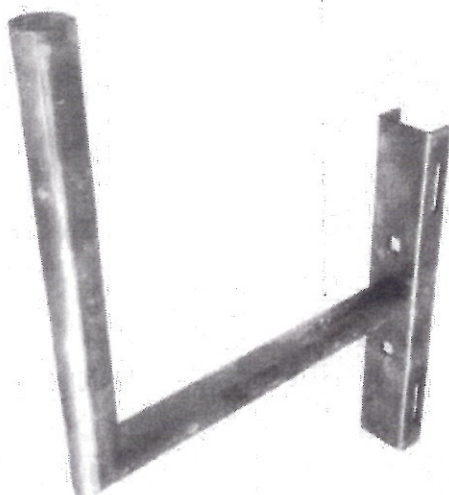
Suporte 30x30

Poste duplo T cilíndrico ou tubos

Suporte fixo fabricado em aço galvanizado à fogo desenvolvido para ser fixado em postes cilíndricos, duplo T, tubo redondo entre 4" (101 mm) e 14" (355 mm).

Código	Modelo
506059	SUPORTE 30X30 SEM CINTA BAP
506082	SUPORTE 30X30 COM CINTA BAP

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 Nº PROCESSO 77843380
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ESPECIFICAÇÕES MECÂNICAS	
Altura	300 mm
Diâmetro	32 mm
Peso 506059	1,600 kg
Peso 506082	1,214 kg
Tratamento	Galvanizado a fogo
Material	Aço

APLICAÇÃO
Todas as antenas DIRU das séries C8 / C9 / D / E / F / G.
Todas antenas DIRV com até 7 elementos.
Todas antenas fixas série ASA.

HP ProBook 440 G5 Notebook PC



Power, style and value, just what your growing business needs.

Full-featured, thin, and light, the HP ProBook 440 lets professionals stay productive in the office and on the go. Stylish design, linear precision, and subtle curvature plus optional Quad Core² performance and long battery life make this ProBook essential for today's workforce.



HP recommends Windows 10 Pro.

Powerful processing

- Get through your deadline-driven, multitasking day with optional 7th Gen Intel® Core™ i3/i5³ or 8th Gen Core™ i5/i7 Quad Core™ processors² and optional NVIDIA® GeForce® discrete graphics⁴.

Stylish and durable ultraslim design

- The HP ProBook 440 delivers stylish design to every business. An ultraslim chassis in a refined new natural silver finish includes a keyboard deck made of durable premium stamped aluminum.

Designed for docking

- Quickly transition to desktop productivity with a single cable that supports docking via USB-C™ which allows you to connect multiple external displays⁴, a power source, and a gigabit network connection through optional docks⁴.

Immersive experience

- Experience vivid audio engagement and an easy conferencing experience with the Skype for Business™ Certified HP ProBook 440 with HP Audio Boost, HP Noise Cancellation.
- Experience the new features of Windows 10 Pro¹ on the thin, light, touch⁴ optional HP ProBook 440.
- Fortify your security by using multiple factors of authentication including fingerprints and facial recognition.
- Get the best of both worlds with dual solid-state and hard drive storage options from HP.
- Battery life that gets you through the workday and beyond. Fast charge 90% in 90 minutes⁵.
- Stay connected with self-healing wireless driver technology and support for the latest global 4G LTE wireless broadband technology⁶.
- Stand up to the workload with a ProBook that is designed to pass MIL-STD 810G testing⁷.
- Help suppress ambient noise including keyboard clicks with HP Noise Cancellation.
- Help make good speakers sound great with the HP Audio Boost.

HP ProBook 440 G5 Notebook PC Specifications Table



Nº PROCESSO

Fls. Nº 1692

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GECON/SESP

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Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro. ¹ Windows 10 Home 64 ¹ FreeDOS 2.0
Processor family ⁵	7th Generation Intel® Core™ i5 processor (i5-7200U); Intel® Pentium® Gold processor; 8th Generation Intel® Core™ i5 processor (i5-8250U); 8th Generation Intel® Core™ i3 processor (i3-8130U); 8th Generation Intel® Core™ i7 processor (i7-8550U)
Available Processors ^{3,4,5}	Intel® Core™ i3-8130U with Intel® UHD graphics 620 (2.2 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores); Intel® Core™ i7-8550U with Intel® UHD graphics 620 (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores); Intel® Core™ i5-8250U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores); Intel® Core™ i5-7200U with Intel® HD Graphics 620 (2.5 GHz base frequency, up to 3.1 GHz with Intel® Turbo Boost Technology, 3 MB cache, 2 cores); Intel® Pentium® Gold 4415U with Intel® HD Graphics 610 (2.3 GHz, 2 MB cache, 2 cores)
Chipset	Chipset is integrated with processor
Display size (diagonal)	14" 12.14
Maximum memory	16 GB DDR4-2400 SDRAM ⁶ SODIMM slots are customer accessible/upgradeable; Supports dual channel memory
Memory slots	2 SODIMM
Internal storage	up to 1 TB SATA (5400 rpm) ⁷ up to 500 GB SATA (7200 rpm) ⁷ up to 512 GB M.2 PCIe NVMe TLC SSD ^{7,8} up to 256 GB M.2 PCIe NVMe SSD ^{7,8} up to 256 GB M.2 SATA SSD ⁷
Display	35.56 cm (14") diagonal HD touch screen, 220 cd/m2, 45% sRGB (1366 x 768); 35.56 cm (14") diagonal FHD UWVA anti-glare flat LED backlight, 220 cd/m2, 45% sRGB (1920 x 1080); 35.56 cm (14") diagonal HD SVA anti-glare LED-backlit, 220 cd/m2, 45% sRGB (1366 x 768) ^{12,14}
Available Graphics	Integrated: Intel® UHD Graphics 620; Intel® HD Graphics 620; Intel® HD Graphics 520; Intel® HD Graphics ¹² Discrete: NVIDIA® GeForce® 930MX (2 GB DDR3 dedicated, switchable) ³³
Audio	2 Integrated stereo speakers; Integrated dual-microphone array
Wireless technologies	Realtek 802.11ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo; Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi and Bluetooth® 4.2 Combo (non-vPro™); HP It4132 LTE/HSPA+ 4G Mobile Broadband; HP It4210 LTE/HSPA+ 4G Mobile Broadband ^{9,10}
Expansion slots	1 multi-format digital media reader (Supports SD, SDHC, SDXC)
Ports and Connectors	1 USB 3.1 Type-C™ Gen 1 (Power Delivery, DisplayPort™); 2 USB 3.0 (1 charging); 1 HDMI 1.4b; 1 VGA; 1 RJ-45; 1 AC power; 1 headphone/microphone combo jack ¹¹
Input devices	HP Premium Keyboard, full-sized island-style, spill resistant and optional backlight Clickpad with image sensor, multi-touch gestures enabled, taps enabled as default
Communications	Realtek RTL8111HSH Gigabit Ethernet
Camera	HD camera; HD IR webcam ^{12,13}
Available Software	Native Miracast Support; HP LAN Protection; HP Velocity; HP 3D DriveGuard 6 (Windows required); HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP Recovery Manager; HP JumpStart; HP Support Assistant; HP Noise Cancellation Software; Buy Office; Bing search for IE11; HP Connection Optimizer ^{21,22,23}
Security management	HP BIOSphere Gen4; HP DriveLock and Automatic DriveLock; HP Client Security Gen3; TPM 2.0 ^{27,28,29,30,31,32,34}
Management features	HP Driver Packs; HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Management Integration Kit for Microsoft System Center Configuration Manager; LANDESK Management ^{24,25,26}
Power	45 W HP Smart AC adapter ¹⁷
Battery type	HP 3-cell, 48 Wh Long Life Li-ion ¹⁶
Battery life	Up to 16 hours and 15 minutes
Dimensions	33.6 x 23.8 x 2 cm (non-touch); 33.6 x 23.8 x 2.15 cm (touch)
Weight	Starting at 1.63 kg (Weight varies by configuration and components)
Energy efficiency compliance	ENERGY STAR® certified; EPEAT® Gold ¹⁹
Environmental specifications	Low halogen ²⁰
Warranty	1-year limited warranty (upgrades available, sold separately), 1-year warranty on primary battery



HP ProBook 440 G5 Notebook PC

Accessories and services (not included)

HP USB-C Mini Dock



Be productive on the go with streamlined, pocket-sized port expansion that's fashionable and functional. The HP USB-C™ Mini Dock has a modern, textured design and packs pass-through charging¹ and data, video, network, and device connectivity² into a compact, portable dock. Be productive on the go with streamlined, pocket-sized port expansion that's fashionable and functional. The HP USB-C™ Mini Dock has a modern, textured design and packs pass-through charging¹ and data, video, network, and device connectivity² into a compact, portable dock.

Product number: 1PM64AA

HP External USB DVDRW Drive



Connect the HP External USB DVD/RW to any available USB port on your PC¹ to get immediate read/write access to your optical media. Connect the HP External USB DVD/RW to any available USB port on your PC¹ to get immediate read/write access to your optical media.

Product number: F2B56AA

HP Slim Backpack



The HP Slim Ultrabook Backpack—a stylish, durable, and compact messenger bag built for your Ultrabook™. A black twill fabric accented with gray plaid combines form and function to help protect your hardware and give you a polished appearance. The HP Slim Ultrabook Backpack—a stylish, durable, and compact messenger bag built for your Ultrabook™. A black twill fabric accented with gray plaid combines form and function to help protect your hardware and give you a polished appearance.

Product number: F3W16AA

HP Notebook Power Bank



Boost your notebook's¹ uptime and charge your everyday USB devices at the same time with the portable, chargeable HP Notebook Power Bank. Boost your notebook's¹ uptime and charge your everyday USB devices at the same time with the portable, chargeable HP Notebook Power Bank.

Product number: N9F71AA

HP 3 year Next Business Day Onsite Hardware Support for Notebooks



Receive 3 years of next business day onsite HW support from an HP-qualified technician for your computing device, if the issue cannot be solved remotely.

Product number: U9VF3E

HP ProBook 440 G5 Notebook PC

N°PROCESSO

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Messaging Footnotes

¹ Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.

² Quad Core processor sold separately or as an optional feature.

³ Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

⁴ Sold separately or as an optional feature.

⁵ Recharges the battery up to 90% within 90 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook and no external devices are connected. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/- 10% due to System tolerance.

⁶ Wireless and Bluetooth may be optional features. Wireless requires separately purchased access point and internet service. Availability of public wireless access points limited.

⁷ MIL STD 810G testing is pending and is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions.

⁸ Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

Technical Specifications Footnotes

¹ Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com/>.

³ Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

⁴ Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

⁵ NOTE: In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on <http://www.support.hp.com>.

⁶ Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

⁷ For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.

⁹ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

¹⁰ WWAN module requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

¹¹ HDMI cable sold separately.

¹² HD content required to view HD images.

¹³ Internet access required.

¹⁴ Sold separately or as an optional feature.

¹⁵ Battery is internal and not replaceable by customer. Serviceable by warranty.

¹⁷ Availability may vary by country.

¹⁸ HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

¹⁹ EPEAT® registered where applicable. EPEAT registration varies by country. See <http://www.epeat.net> for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at www.hp.com/go/options.

²⁰ External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

²¹ Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: <http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast>

²² HP ePrint Drive requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Print times and connection speeds may vary.

²³ HP Support Assistant requires Windows and Internet Access.

²⁴ HP Driver Packs is not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

²⁵ HP Management Integration Kit for Microsoft System Center Configuration Manager and HP Management Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.

²⁶ LANDESK Management subscription required.

²⁷ HP BIOSphere Gen4 requires Intel® 7th or 8th Generation processors.

²⁸ HP Client Security Suite Gen3 requires Windows and Intel® or AMD 7th or 8th Generation processors.

²⁹ Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88. Supported on Elite platforms with BIOS version F.03 or higher.

³⁰ Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: <http://www.absolute.com/company/legal/agreements/computrace-agreement>. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.

³¹ HP Password Manager requires Internet Explorer or Chrome or Firefox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser.

³² Microsoft Defender Opt in and internet connection required for updates.

³³ NVIDIA® technology requires an Intel® processor, plus an NVIDIA® GeForce® discrete graphics configuration and is available on Windows 10 Professional OS. With NVIDIA® Optimus™ technology, full enablement of all discrete graphics video and display features may not be supported on all systems (e.g. OpenGL applications will run on the integrated GPU or the APU as the case may be).

³⁴ HP Drive Lock is not supported on NVMe™ drives.

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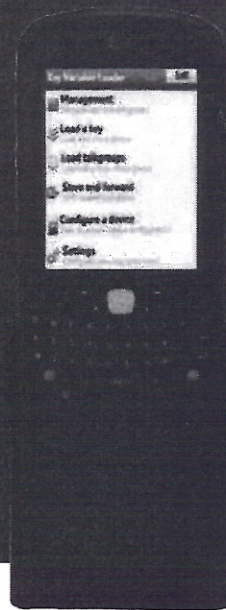
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4AA7-0845, November 2018



P25 KVL 4000

KEY VARIABLE LOADER ENSURES SECURE
INTEROPERABLE COMMUNICATIONS WITH EASE



The KVL 4000 Key Variable Loader (KVL) is outfitted with features and an easy to use user interface that allows for increased efficiency and programming flexibility. A large liquid crystal display (LCD) color display paired with an easy use alphanumeric keypad enables simple viewing and data entry for less errors and greater efficiency.

Designed to meet the requirements of two-way radio programmers, this compact, rugged device is built to withstand everyday use in harsh Federal and public safety environments. By providing users with the highest level of secure programming, FIPS 140-2 Level 3, ensures your information is never compromised.

SLEEK, RUGGED, AND LIGHTWEIGHT

Built to withstand everyday programming use in federal and public safety environments; meets or exceeds MIL-STD specs for sealing and drop.

- IP54 sealing
- 4 foot drop

NEW FORM FACTOR AND USER INTERFACE

The KVL utilizes the MC55, which brings additional rugged functionality to encryption rekeying.

- Large 3.5 inch color display with day/night modes and multi-level backlighting.
- Touch screen interface makes navigating and accessing information fast and simple.

POWERED BY MICROSOFT'S WINDOWS® MOBILE 6 OPERATING SYSTEM

Remote desktop with ActiveSync helps manage and synchronize files and folders to and from the KVL.

AUTOMATIC KEY GENERATION

Automatic generation of random keys for any algorithm. an auto-generate a single key or a bulk set of keys

HIGHEST LEVEL OF SECURITY

- FIPS 140-2 level 3 provides the highest level of security for your data
- User timeout – Automatically logs out the user after a specified period of inactivity
- User and Administrator Authentication allow users and administrators to perform and restrict firmware upgrades, changes and key management.

DEAD BATTERY OPERATION

Ability to operate the KVL including key management and key downloading while charging.

KEY MANAGEMENT FACILITY (KMF) SUPPORT

With store and forward capability the encryption keys are downloaded from the KMF, stored in the KVL, and delivered to the end units.

COMPATIBILITY

Backwards and forward compatible with existing KVL 3000/3000+ keyloaders and keyloading cables.

OPTIONAL ACCESSORIES

- USB modem
- USB programming cable

STANDARD FEATURES

The KVL 4000 ships standard with the following:

- MC55 PDA
- Security adapter
- Battery charger
- 3600 mAh Li-Ion battery
- User Manual



KVL 4000 TWO-WAY PORTABLE RADIO TYPICAL SPECIFICATIONS

PHYSICAL CHARACTERISTICS	
DIMENSIONS	
Length	216 mm
Width 84 mm	84 mm
Depth 39 mm	39 mm
BATTERY/CHARGER	
3600 mAh Lithium-Ion 100/240VAC 50/60 Hz Charger	Up to 12 hours of typical keyloader operation

USER INTERFACE	
Display	320 line, 240 character 3.5" QVGA resistive touch panel screen with LED backlight
Keypad	QWERTY Keyboard
RS232/DB-9 Connector	yes
USB Type A Port	yes
MX-style keyload port	yes

ENCRYPTION SPECIFICATIONS			
SUPPORTED SYSTEMS		12 Kbps SECURENET	
		9.6 Kbps Secure ASTRO (VSELP Vocoder)	
		9.6 Kbps Secure ASTRO 25 (IMBE Vocoder)	
SUPPORTED ALGORITHMS		DES, DES-OFB, DES-XL	
		DVI-XL	
		DVP-XL	
		AES	
		ADP	
STANDARDS		FIPS 46-3	
		FIPS 81	
		FIPS 140-2 Levels 2 and 3	
		FIPS 197	
ALGORITHM	ASTRO 25	ADVANCED SECURENET (ASN)	KMF**
DES-XL	X	X	X
DES-OFB	X	X	X
DVP-XL	X	X	X
DVI-XL	X	X	X
ADP (HW)	X		
AES	X	X	X

REGULATORY COMPLIANCE AND APPROVALS	
ELECTROMAGNETIC COMPATIBILITY	
	FCC Part 15 Class A Emission
	EN55022 Class A Emission
	EN50392 RF Exposure
	EN55024
SAFETY	
	EN60950-1
	UL/cUL 60950-1

ENVIRONMENTAL	
Disposal	RoHS Compliant
Operating Temperature	-10 to +50 degree C
Storage Temperature	-40 to +70 degree C
Ingress Protection	IEC IP54
ESD Protection	±15kV air; ±6kV contact
Humidity	95% max, non-condensing

*Only digital capable subscribers supported. Contact your local sales representative for a complete list of supported products.

**KVL 4000 does not support KMC and CIU

Specifications are subject to change without notice.
All specifications shown are typical



Motorola Solutions Singapore Pte Ltd
80 Pasir Panjang Road #18-81 Mapletree Business City Singapore 117372

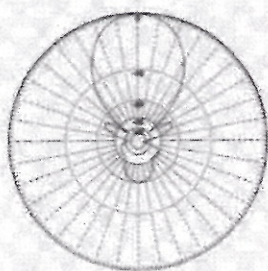
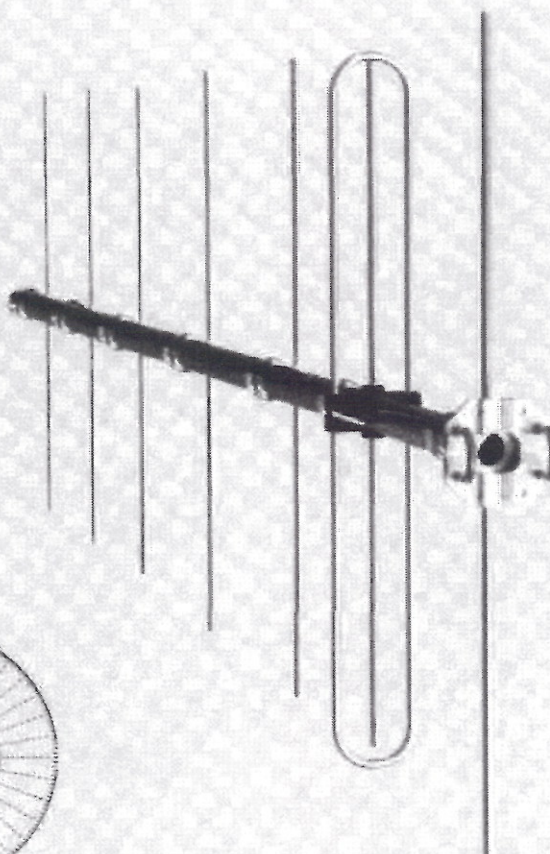
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04-2018

DIRV-120/8

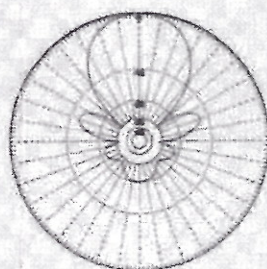
ANTENA DIRECIONAL VHF YAGI 8 ELEMENTOS

Antena direcional de alto ganho do tipo YAGI, fabricada em liga especial de alumínio, com excelente resistência mecânica e alta condutibilidade elétrica.

A antena foi projetada para impedir o acúmulo de cargas eletrostáticas no cabo coaxial. Esta característica permite maior proteção dos equipamentos e redução do nível de ruído, permitindo uma ótima recepção de sinais distantes. Além de ser leve e de fácil instalação, não requer ajustes em campo para que seu VSWR permaneça abaixo de 1,5:1 em toda a faixa de frequência de operação.



Polarização Horizontal



Polarização Vertical

Código	Modelo	Frequência
504015	DIRV-120/8	144 / 174 MHz

ESPECIFICAÇÕES ELÉTRICAS	
VSWR	$\leq 1,5 : 1$
Polarização	Vertical / Horizontal
Impedância Nominal	50 Ω
Potência Máxima	300 Watts
Ganho	12 dBi
Relação frente costa	≥ 20 dB
Ângulo de 1/2 POT.	Horizontal 159 MHz 40°
Ângulo de 1/2 POT.	Vertical 159 MHz 51°
Terminação	UHF Fêmea
Proteção contra-raios	Elementos aterrados

ESPECIFICAÇÕES MECÂNICAS	
Largura / Diâmetro	1030 mm
Peso	8 Kg
Comprimento total	2270 mm
Fixação	Tubo Metálico 51 mm
Área de exposição ao vento	0,154 m ²
Material básico	Alumínio
Resiste a Ventos Operacionais	≥ 110 Km/h
Resiste a Ventos de Sobrevivência:	≥ 200 Km/h



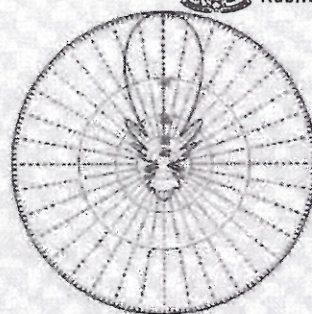
DIRU-160/18C8A

ANTENA DIRECIONAL YAGI 18 ELEMENTOS

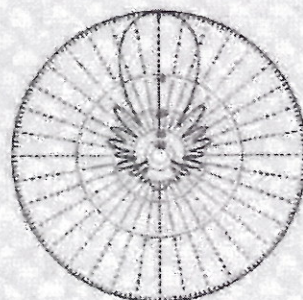
Antena direcional de alto ganho do tipo YAGI, fabricada em liga especial de alumínio, com excelente resistência mecânica e alta condutibilidade elétrica.

A antena foi projetada para impedir o acúmulo de cargas eletrostáticas no cabo coaxial. Esta característica permite maior proteção dos equipamentos e redução do nível de ruído, permitindo uma ótima recepção de sinais distantes.

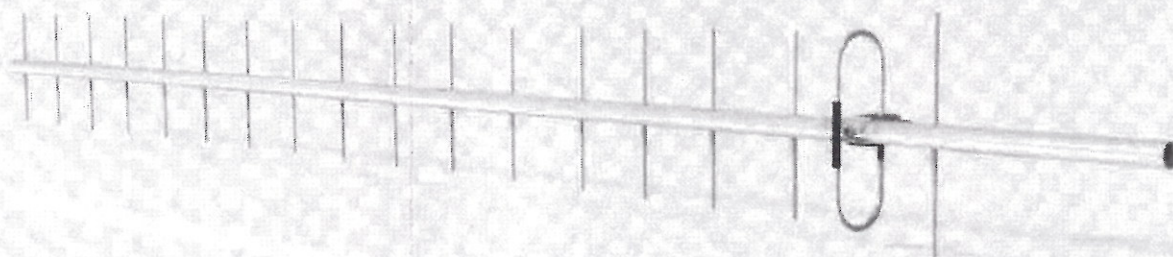
Além de ser leve e de fácil instalação, não requer ajustes em campo para que seu VSWR permaneça abaixo de 1,5:1 em toda a faixa de frequência de operação.



POLARIZAÇÃO HORIZONTAL



POLARIZAÇÃO VERTICAL



Código	Modelo	Frequência
504322	DIRU-160/18C8A	824/894 MHz

ESPECIFICAÇÕES ELÉTRICAS	
VSWR	$\leq 1,5 : 1$
Polarização	Vertical / Horizontal
Impedância Nominal	50 Ω
Potência Máxima	120 Watts
Ganho	16 dBi
Relação frente costa	≥ 20 dB
Ângulo de 1/2 POT.	Horizontal 849 MHz 26°
Ângulo de 1/2 POT.	Vertical 849 MHz 30°
Terminação	N Fêmea
Proteção contra-raios	Elementos aterrados

ESPECIFICAÇÕES MECÂNICAS	
Largura / Diâmetro	186 mm
Comprimento total	1.600 mm
Peso	1,110 Kg
Acabamento	Pintura Epóxi Branca
Fixação	Tubo Metálico 50 mm
Área de exposição ao vento	0,070 m ²
Material básico	Alumínio
Resiste a Ventos Operacionais	≥ 110 Km/h
Resiste a Ventos de Sobrevivência:	≥ 200 Km/h



Fls. Nº 1699

Nº PROCESSO

77843380



GECON/SESP

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MOTOROLA SOLUTIONS

CERTIFICADO HOMOLOGAÇÃO ANATEL

Certificado de Homologação

(Intransferível)

Nº 04588-16-01699

Validade: Indeterminada

Emissão: 20/02/2019

Requerente: MOTOROLA SOLUTIONS LTDA

Fabricante: MOTOROLA SOLUTIONS, INC.

MAGALHAES DE CASTRO Nº 4600 TORRE 3 SALA 81 E 82 ANDAR 3
CIDADE JARDIM
05676120 SÃO PAULO SP

1301 E ALONGQUIN RD SCHAUMBURG ILLINOIS
ESTADOS UNIDOS DA AMÉRICA

Este documento homologa, nos termos da regulamentação de telecomunicações vigente, o Certificado de Conformidade nº NCC-14178/17 emitido pelo
Associação NCC Certificações do Brasil. Esta homologação é expedida em nome do solicitante aqui identificado e é válida somente para o produto a
seguir discriminado, cuja utilização deve observar as condições estabelecidas na regulamentação de telecomunicações.

Tipologia: Transceptor Troncalizado Móvel

Modelo: M37TSS9PW1AN - (APX 8500)

Características técnicas básicas:

Faixa de Frequências Tx (MHz)	Potência Máxima de Saída (W)	Designação de Emissões
148,0 a 174,0	10,0	11K0F3E, 14K0F3E
148,0 a 174,0	50,0	8K10F1D, 8K10F1E, 8K10F1W
148,0 a 174,0	50,0	8K10G1D, 8K10G1E, 8K10G1W
380,0 a 399,9	40,0	11K0F3E, 14K0F3E
380,0 a 399,9	40,0	8K10F1D, 8K10F1E, 8K10F1W
380,0 a 399,9	40,0	8K10G1D, 8K10G1E, 8K10G1W
458,0 a 470,0	25,0	11K0F3E, 14K0F3E
458,0 a 470,0	25,0	8K10F1D, 8K10F1E, 8K10F1W
458,0 a 470,0	25,0	8K10G1D, 8K10G1E, 8K10G1W
806,0 a 869,0	25,0	14K0F3E
806,0 a 869,0	25,0	8K10F1D, 8K10F1E, 8K10F1W
806,0 a 869,0	25,0	8K10G1D, 8K10G1E, 8K10G1W
156,025 a 162,025	25,0	16K0F3E

O produto incorpora Transceptor de Radiação Restrita com as seguintes características:

Potência Máxima de Saída (W)	Tecnologias	Faixa de Frequências Tx (MHz)	Designação de Emissões	Tipo de Modulação
0,00545	SALTO EM FREQUÊNCIA	2.400,0 a 2.483,5	83KF7D	GFSK
0,003	SALTO EM FREQUÊNCIA	2.400,0 a 2.483,5	1M26G7D	8DPSK
0,00785	SEQUÊNCIA DIRETA	2.400,0 a 2.483,5	760KF7D	GFSK
0,152	SEQUÊNCIA DIRETA	2.400,0 a 2.483,5	9M40X9D	DBPSK/DQPSK/CCK
0,144	OFDM	2.400,0 a 2.483,5	16M4X9D	BPSK/QPSK-16-64QAM
0,155	OFDM	2.400,0 a 2.483,5	17M8X9D	BPSK/QPSK-16-64QAM

Tipologia de Modulação: FM, C4FM, HCPM

Ensaios de SAR: não aplicáveis

Observações

O produto deve estar ajustado na(s) potência(s) e frequência(s) autorizada(s) pelo órgão técnico competente da Agência Nacional de Telecomunicações - Anatel, quando da sua utilização.

Na instalação do produto devem ser observadas as condições de uso conforme estabelecido no Regulamento sobre Equipamentos de Radiocomunicação de Radiação Restrita.

Este certificado substitui o de mesmo número emitido em 22/02/2018.

DO
15

As informações constantes deste certificado de homologação podem ser confirmadas no SCH Sistema de Gestão de Certificação e Homologação disponível no portal da Anatel. (www.anatel.gov.br).

[illegible]

Nº PROCESSO

7 7 8 4 3 3 8 0



GECON/SESP

Rubr.

AUTENTICADO

Em: 22 / 10 / 19

Assinatura

 **Natália Carnielli Giori**
Assessor Especial
SESP
Nº Funcional: 3103420

Campinas, 06 de agosto de 2019

Fls. Nº

Nº PROCESSO

1702
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GECON/SESP
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CERTIFICAÇÕES
do Brasil
A Bureau Veritas Company

A

Motorola Solutions

DECLARAÇÃO

Na qualidade de Organismo Certificador Designado pela ANATEL (OCD), declaramos, para os devidos fins, que o produto constante no quadro abaixo, encontra-se em processo de certificação pela Associação NCC Certificações do Brasil para fins de homologação junto à Agência Nacional de Telecomunicações, de acordo com a Resolução 242 de 30 de novembro de 2000 da ANATEL.

Modelos	Tipo do Produto	Categoria
DIRV-120/08	Antena ponto a ponto	II

Atenciosamente,

ANDRE LUIZ ROCHA
CARLETTI:04381601777

André Carletti
Gerente Técnico
NCC Certificações
Fone: +55 19 2517 9685
Email: andre.carletti@ncc.org.br

Proposta NCC - NCC 55362/19

Certificado de Homologação

(Intransferível)

Nº 01269-15-05036

Validade: Indeterminada

Emissão: 19/08/2019

GECON/SESP

Rubr.

Fabricante: **ARS ELETRONICA INDUSTRIAL LTDA**
RUA PROFESSOR OSWALDO QUIRINO SIMOES Nº 475 VILA CALIFORNIA
04775010 SÃO PAULO SP
BRASIL

Este documento homologa, nos termos da regulamentação de telecomunicações vigente, o Certificado de Conformidade nº 6118, emitido pelo **FUNDAÇÃO CENTRO DE PESQUISA E DESENVOLVIMENTO DE TELECOMUNICAÇÕES - CPQD**. Esta homologação é expedida em nome do fabricante aqui identificado e é válida somente para o produto a seguir discriminado, cuja utilização deve observar as condições estabelecidas na regulamentação de telecomunicações.

Tipo - Categoria:

Antena Ponto a Ponto II

Modelo - Nome Comercial (s):

DIRU-110/7C8A / DIRU-140/12C8A / DIRU-160/18C8A / DIRU-200/22C8A

Características técnicas básicas:

Perda de Retorno (dB)	Classe Horizontal	Faixa de Frequências Tx (MHz)	Ganho Mínimo (dBi)	Classe Cruzada	Polarização
18,23	Classe I	824,0 a 894,0	10,33	XPD1	H ou V

Antena ensaiada: DIRU-110/7C8A;

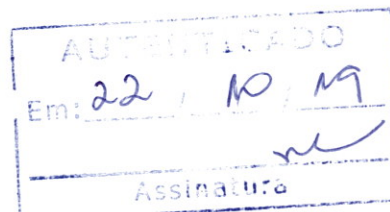
(*) As antenas modelos DIRU-110/7C8A, DIRU-140/12C8A, DIRU-160/18C8A e DIRU-200/22C8A atendem ao critério de família adotado pela Resolução nº 609 (revogada pelo ato nº 932/2018).

Este certificado substitui o de mesmo número emitido em 10/04/2017.

Constitui obrigação do fabricante do produto no Brasil providenciar a identificação do produto homologado, nos termos da regulamentação de telecomunicações, em todas as unidades comercializadas, antes de sua efetiva distribuição ao mercado, assim como observar e manter as características técnicas que fundamentaram a certificação original.

As informações constantes deste certificado de homologação podem ser confirmadas no SCH - Sistema de Gestão de Certificação e Homologação, disponível no portal da Anatel (www.anatel.gov.br).

Davison Gonzaga da Silva
Gerente de Certificação e Numeração



Natália Carnielli Giori
Assessor Especial
SESP
Nº Funcional: 3103420

Certificado de Homologação

(Intransferível)

Nº 00794-05-00324

Validade: Indeterminada
Emissão: 02/08/2019

Fabricante:

RFS-BRASIL TELECOMUNICACOES LTDA

RUA MARCELINO PINTO TEIXEIRA Nº 481 GRAMADO

06816000 EMBU DAS ARTES SP

BRASIL

Este documento homologa, nos termos da regulamentação de telecomunicações vigente, o Certificado de Conformidade nº NCC 8554/12 emitido pelo Associação NCC Certificações do Brasil. Esta homologação é expedida em nome do fabricante aqui identificado e é válida somente para o produto a seguir discriminado, cuja utilização deve observar as condições estabelecidas na regulamentação de telecomunicações.

Tipo - Categoria:

Cabo Coaxial Flexível

Modelo - Nome Comercial (s):

RG-213

Características técnicas básicas:

Cabo Coaxial flexível com impedância de 50 ohms e uso interno;

Condutor central de cobre nu (multifilar) com diâmetro de 2,29 mm, dielétrico de composto termoplástico com diâmetro de 7,20 mm, condutor externo constituído de malha de cobre nu com diâmetro de 8,22 mm e capa externa de composto termoplástico em PVC e diâmetro de 10,20 mm com classificação de retardância à chama CMX.

Observações:

Designação do cabo: RF50 2,28F7,21 CuPE sólido CMX 1 a 2000 MHz.

Este certificado substitui o de mesmo número emitido em 19/07/2017.

Constitui obrigação do fabricante do produto no Brasil providenciar a identificação do produto homologado, nos termos da regulamentação de telecomunicações, em todas as unidades comercializadas, antes de sua efetiva distribuição ao mercado, assim como observar e manter as características técnicas que fundamentaram a certificação original.

As informações constantes deste certificado de homologação podem ser confirmadas no SCH - Sistema de Gestão de Certificação e Homologação, disponível no portal da Anatel. (www.anatel.gov.br).

Davidson Gonzaga da Silva
Gerente de Certificação e Numeração

AUTENTICADO
Em: 22 / 10 / 19
Assinatura

Natália Carnielli Giori
Assessor Especial
SESP
Nº Funcional: 3103420

Certificado de Homologação

(Intransferível)

Nº 00976-05-00324

Validade: Indeterminada

Emissão: 04/07/2019

Fabricante:

RFS-BRASIL TELECOMUNICAÇÕES LTDA

RUA MARCELINO PINTO TEIXEIRA Nº 481 GRAMADO

06816000 EMBU DAS ARTES SP

BRASIL

Este documento homologa, nos termos da regulamentação de telecomunicações vigente, o Certificado de Conformidade nº NCC 8613/12 emitido pelo Associação NCC Certificações do Brasil. Esta homologação é expedida em nome do fabricante aqui identificado e é válida somente para o produto a seguir discriminado, cuja utilização deve observar as condições estabelecidas na regulamentação de telecomunicações.

Tipo - Categoria:

Cabo Coaxial Flexível

Modelo - Nome Comercial (s):

RG-58 (RG-58) / RG-58 EVO - (RG-58 EVO)

Características técnicas básicas:

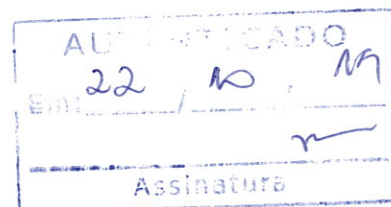
Cabo coaxial flexível com impedância de 50 Ohms, para aplicação interna, constituído de condutor central multifilar de cobre estanhado com diâmetro de 0,928 mm, dielétrico de composto de PEBD com diâmetro externo de 2,92 mm, condutor externo constituído de uma trança de fios de cobre estanhado, capa externa em PVC, retardante à chama, classe CMX,*/ Designação do cabo: RF50 0,928F2,92 CuSnPEBD Sn CMX 1 a 2400,*/ Classificação do cabo coaxial: 1-1-2-2-2.

Este certificado substitui o de mesmo número emitido em 22/10/2018.

Constitui obrigação do fabricante do produto no Brasil providenciar a identificação do produto homologado nos termos da regulamentação de telecomunicações, em todas as unidades comercializadas, antes de sua efetiva distribuição ao mercado, assim como observar e manter as características técnicas que fundamentaram a certificação original.

As informações constantes deste certificado de homologação podem ser confirmadas no SCH - Sistema de Gestão de Certificação e Homologação, disponível no portal da Anatel: (www.anatel.gov.br).

Davison Gonzaga da Silva
Gerente de Certificação e Numeração



Natália Carnielli Giori
Assessor Especial
SISP
Nº Funcional: 3103420