



FUTURE-PROOF TECHNOLOGY WITH MULTIMODE CAPABILITIES

KEY FEATURES

Globally recognized Intrinsically Safe rating

Manages migration risks with portable operations—DMR Tier 3 and Tier 2, MPT 1327 and conventional analog FM

Digital Mobile Radio (DMR) compliance for greater choice and interoperability

AES encryption, voice and data, pre-set status messages and internal GPS for safe and efficient operations

Engineered for demanding environments with IP67 rating and water-shedding grille

TP9300 IS PORTABLE

INTRINSICALLY SAFE (IS) DMR TIER 3 AND TIER 2 RADIO

The Harris TP9300 IS reduces migration risks while delivering safe performance in hazardous conditions. Multimode operations including DMR Tier 3 and Tier 2, MPT 1327 and conventional analog FM, expand user choice and interoperability.

Built to last, the TP9300 IS meets global Intrinsically Safe specifications and exceeds MIL standard for the most rugged applications. The DMR Portable has an IP67 rating for water and dust protection and a water-shedding grille to ensure voice clarity and volume are maintained in wet environments.

Workforce safety and management is enhanced with man down alerts, GPS positioning and data messaging for status, location and texts. And, the TP9300 IS portable is made in the internationally recognized blue color for instant identification in the field.



FEATURES AND BENEFITS

Future-proof multimode portable

The TP9300 IS portable operates in four modes, delivering exceptional functionality and value in one device.

The TP9300 IS provides:

- Roaming between MPT 1327 and DMR Tier 3 trunked networks
- Roaming between Conventional FM and DMR Tier 2 Conventional networks
- Individual calls provide privacy between individuals
- Group calls allow separate teams to communicate without having to listen to irrelevant traffic
- Increased channel capacity supporting up to 2,000 channels
- Analog capability includes Priority and Dual Priority, Editable, Zone and Background Scan
- PSTN dialing allows a user to make phone calls on DMR systems that support telephone interconnect
- Shared menu structure between 9300 terminals
- Trunked operation allows for individual and private calls within designated groups

Worker safety is ensured with globally recognized Intrinsically Safe rating system

The TP9300 IS portable is designed and tested to meet global IS standards, ensuring safe operation in hazardous environments.

- The battery circuitry is fully encapsulated
- The radio circuit has a stored energy limitation, which prevents internal sparking or overheating in the unlikely event of a circuit failure
- Component and conductor spacing and protective coatings prevent short circuits caused by dust or atmospheric contamination

Internationally recognized IS color

The TP9300 IS model is made in the internationally recognized blue color for Intrinsically Safe portables, ensuring instant recognition in the field.

Engineered for demanding environments with IP67 rating

- MIL standard specifications for the most rugged applications
- IP67 rating for water and dust protection
- 16-key keypad
- Four programmable function keys including emergency key

- Antenna is easily locatable in dark or restrictive environments
- Recessed lens provides screen protection
- Impact-protected corners provide shock absorbing durability
- Water-shedding grille ensures voice clarity and high audio volume is maintained in wet environments

Complete package with accessories portfolio

- Intrinsically Safe audio accessories including speaker-microphones, headsets and earpieces
- Intrinsically Safe Li-Ion battery
- Intrinsically Safe compatible battery charger
- Data services improve organizational efficiencies
- Integrated GPS to monitor your workforce
- Short data messages for location, status and text
- Packet data over traffic channels for workforce management, Telemetry, SCADA and customer specific applications

SPECIFICATIONS FOR: TP9300 IS PORTABLE - INTRINSICALLY SAFE [IS] DMR TIER 3 AND TIER 2 RADIO

GENERAL	
Frequency Stability	±0.5ppm (-22°F to 140°F / -30°C to 60°C)
Channel/Zones	1,000-2,000 channels/50-100 zones
Talkgroups	26 talkgroup lists comprised of up to 1,000-2,000 members each
Scan Groups	300 with up to 50 members each, maximum of 2,000 members total
Dimensions (H x W x D): with Li-Ion 2300 mAh battery	5.35in x 2.56in x 1.77in (136mm x 65 mm x 45mm) excluding knobs
Weight: with Li-Ion 2300mAh battery	13.93oz (395g) with no antenna 15.17oz (430g) with IS battery + antenna
Radio Operating Temperature Range	-20°C to 60°C (-4°F to 140°F)*
Water and Dust Protection	IP67
ESD Rating	+/- 4kV contact discharge and +/-8kV air discharge
Frequency Increment/Channel Step	2.5kHz, 3.125kHz, 5kHz and 6.25kHz
Digital Protocol (DMR)	ETSI / TS 102 361
Signaling Options (Analog)	MDC1200, encode and decode, 2-tone decode, PL (CTCSS), DPL (DCS), Selcall (5-tone)
Vocoder Type	AMBE +2™
Packet Data	Rate, ¾ rate, full rate, single slot

TRANSMITTER			
Frequency Bands	VHF	UHF	700/800MHz
Transmit Frequency Ranges	136–174MHz	380-470MHz	762–870MHz
Output Power (IIA)	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	2.5W, 2W, 1W
Output Power (IIC)	1W	1W	1W
FM Transmit Deviation	±2.5kHz	2.5kHz	±2.5kHz
12.5kHz / 25kHz channels*	±5kHz	±5kHz	±5kHz
FM Hum and Noise (Analog):			
12.5kHz channel	-40dB	-40dB	-40dB
25kHz channel	-45dB	-45dB	-45dB
Conducted Emissions	-36dBm <1GHz,	-36dBm <1GHz	-20dBm
Radiated Emissions	-30dBm >1GHz	-30dBm >1GHz	20dBm
Audio Response (Analog)	+1/-3dB	+1/-3dB	+1/-3dB
Audio Distortion (Analog)	2.5%	2.5%	—

RECEIVER			
Frequency Band:	VHF	UHF	700/800MHz
Receive Frequency Ranges	136-174MHz	380-470MHz	762-776MHz 850-870MHz
Channel Spacing*	6.25kHz, 12.5kHz, 25kHz	6.25kHz, 12.5kHz, 25kHz	6.25kHz, 12.5kHz, 25kHz
Sensitivity:			
Analog (12dB SINAD)	-120dBm (0.22 µV)	-120dBm (0.22 µV)	-120dBm (0.22 µV)
Digital (PDMR) 5% BER	-119dBm (0.25 µV)	-119dBm (0.25 µV)	-119dBm (0.25 µV)
Intermodulation Rejection	75dB (TIA603D) 65dB (ETS 300)	75dB (TIA603D) 65dB (ETS 300)	75dB (TIA603D) 65dB (ETS 300)
Selectivity (Analog) 2-Tone:			
12.5kHz	50dB (TIA603D)	50dB (TIA603D)	50dB (TIA-603D)
25kHz	70dB (TIA603D)	70dB (TIA-603D)	70dB (TIA-603D)
Selectivity (Analog) 1-Tone:			
12.5kHz	52dB (ETS 3000-086/TIA603C)	50dB (ETS 3000-086/TIA603C)	60dB (ETS 3000-086/TIA603C)
25kHz	73dB (ETS 3000-086/TIA603C)	70dB (ETS 3000-086/TIA603C)	70dB (ETS 3000-086/TIA603C)
Spurious Response Rejection	70dB (TIA603D)	70dB (TIA603D)	70dB (TIA603D)
FM Hum and Noise:			
Narrowband	-40dB	-40dB	-40dB
Wideband	-45dB	-45dB	-45dB
Rated Audio Power (internal)	0.5W	0.5W	0.5W
Audio Response (Analog)	+1/-3dB (TIA603D)	+1/-3dB (TIA603D)	+1/-3dB (TIA603D)
Audio Distortion (Analog)	2%	2%	2%

MILITARY STANDARDS 810C, D, E, F AND G		
Applicable MIL-STD Method:	Method	Procedure
Low Pressure	500.5	2
High Temperature	501.5	1, 2
Low Temperature	502.5	1, 2
Temperature Shock	503.5	1
Solar Radiation	505.5	1
Rain	506.5	1, 3

MILITARY STANDARDS 810C, D, E, F AND G (CONTINUED)

Applicable MIL-STD Method:	Method	Procedure
Humidity	507.5	2
Salt Fog	509.5	1
Dust	510.5	1
Immersion	512.5	1
Vibration	514.6	1
Shock	516.6	1, 4, 5, 6

BATTERY

	Analog	DMR
Li-Ion 2300 mAh Battery Shift Life (5/5/90)	11.5 hours	15 hours

CHARGER

Charger Options (Li-Ion) IS compatible desktop single charger

REGULATORY DATA

	USA	Canada	Europe	Australia/New Zealand
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219, EN300-489, EN60950	AS/NZ4295
UHF (380-470MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219, EN300-489, EN60950	AS/NZ4295
700/800MHz	CFR 47	RSS-119	NA	NA

IS COMPLIANCE*

	Output Power	USA	Brazil	Canada	Europe	Australia/NZ
VHF (136-174MHz)	1-5W	Class I Zone 1 AEx ib IIA T4... T3 Gb	—	Class I Zone 1 Ex ib IIA T4... T3 Gb	II 2 G Ex ib IIA T4... T3 Gb	Ex ib IIA T4... T3 Gb
		Class I Div 2 Group D	—	—	—	—
	1W	Class I Zone 1 AEx ib IIC T4... T3 Gb	—	Class I Zone 1 Ex ib IIC T4... T3 Gb	II 2 G Ex ib IIC T4... T3 Gb	Ex ib IIC T4... T3 Gb
UHF (380-470MHz)	1-4W	Class I Zone 1 AEx ib IIA T4... T3 Gb	—	Class I Zone 1 Ex ib IIA T4... T3 Gb	II 2 G Ex ib IIA T4... T3 Gb	Ex ib IIA T4... T3 Gb
		Class I Div 2 Groups D	—	—	—	—
	1W	Class I Zone 1 AEx ib IIC T4... T3 Gb	—	Class I Zone 1 Ex ib IIC T4... T3 Gb	II 2 G Ex ib IIC T4... T3 Gb	Ex ib IIC T4... T3 Gb
700/800MHz	1-2.5W	Class I Zone 1 AEx ib IIA T4... T3 Gb	Ex ib IIA T4... T3 Gb	Class I Zone 1 Ex ib IIA T4... T3 Gb	—	Ex ib IIA T4... T3 Gb
		Class I Div 2 Groups D	—	—	—	—
	1W	Class I Zone 1 AEx ib IIC T4... T3 Gb	Ex ib IIC T4... T3 Gb	Class I Zone 1 Ex ib IIC T4... T3 Gb	—	Ex ib IIC T4... T3 Gb

* Subject to compliance and ambient temperature: T4 -20°C < Ta < +50°C, T3 -20°C < Ta < +60°C. Level of compliance subject to approval.

Specifications are subject to change without notice and shall not form part of any contract. They are issued for guidance purposes only. All specifications shown are typical.

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