



TP9300 PORTABLE DIGITAL MOBILE RADIOS (DMR)

FUTURE-PROOF, MULTIMODE COMMUNICATIONS

FEATURES

Quad-mode functionality

Roaming between MPT and DMR Tier 3 trunked networks, and FM conventional and DMR Tier 2 conventional networks

Open DMR standard provides more flexibility and interoperability

Available in a range of models and configurable to suit user needs and applications

Integrated GPS and Bluetooth® wireless technology

Harris TP9300 DMR portables deliver digital trunked and conventional operation, in addition to full MPT 1327 and conventional FM—all in one device.

These quad-mode solutions communicate with legacy, current and new standard radios, easing migration complexities and costs, while increasing first responder interoperability.

TP9300 portables are built for rugged conditions, proven to meet Military Standards 810C, D, E, F and G, and are IP67 waterproof. Enhanced vocoder assures clear communications even in noisy environments. Plus, Lone Worker, Man Down, and integrated GPS technology gives control centers real-time ability to track and locate all users within the network, increasing both safety and efficiency.



FEATURES AND BENEFITS*

Improve workforce safety with the following TP9300 features:

- Man Down and Lone Worker as standard
- Integrated GPS ensures you always know where your workforce is
- Wireless audio accessories utilizing Bluetooth technology
- Crystal-clear communications enabling all personnel to understand each other
- Emergency calls have priority access to the network

Improve your organizations' efficiency:

- GPS location allows efficient allocation of resources to events
- Text messaging for enhanced and unambiguous communications
- Pre-defined status messages for fast notification and response in common situations

Privacy features

- Trunked operation allows for individual and private calls within designated groups
- Optional 56-bit DES encryption, or ARC4 encryption

Designed to perform:

- Water-shedding grill maintains transmitted voice clarity and high audio volume in wet environments
- IP67 water and dust protection

- Four programmable function keys including emergency key
- Programmable orange emergency key at base of antenna for ease of location in dark or restrictive environments
- Zero, four and sixteen key options
- Recessed lens provides screen protection
- Impact-protected corners provide shock absorbing protection
- Intrinsically Safe options available

Voice communications delivery on operational needs:

- Quad mode terminal offering Trunked DMR, conventional DMR, MPT 1327 and analog conventional FM in one device
- 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 amongst themselves without having to listen to irrelevant traffic
- Increased channel capacity with support of 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

- Optional continuous channel control knob
- Shared menu structure between all 9300 terminals

Facilities to improve network security:

- In DMR trunked mode all terminals must be authenticated on the network before they are given access
- Stun and Revive are implemented to temporarily deny a specific portable access to the network

Complete package with accessories portfolio:

- Audio accessories including speaker-microphones, headsets and earpieces
- Choice of chargers, including in-vehicle, single fast chargers, and 6 way multi-chargers*
- Standard and high capacity Li-Ion batteries available
- Wide selection of carry cases and accessories

Data services:

- Embedded data for location
- Short data messages for location, status and text
- Packet data over traffic channels for work force management, Telemetry, SCADA and customer specific applications

Color options:

- Black, red, yellow, orange and hi-visibility green for easy identification in the field

* Not all features are supported in all modes of operation. Feature comparison tables are available in the product catalog.

SPECIFICATIONS FOR: TP9300 PORTABLE DMR

GENERAL

Frequency Stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
Channels/Zones	1,000 – 2,000 channels/50 – 100 zones
Talkgroups	26 talkgroup lists 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 (D x W x H):	
With Li-Ion standard battery	1.61in x 2.56in x 5.35in (41mm x 65mm x 136mm) excluding knobs
With Li-Ion high-capacity battery	1.77in x 2.56in x 5.35in (45mm x 65mm x 136mm) excluding knobs
Weight:	
With Li-Ion standard battery	11.46oz (325g) – no antenna
With Li-Ion high-capacity battery	13.12oz (372g) – no antenna
Options	Black keypad, 3-way zone selector
Channel Spacing	6.25/12.5/15/20/25/30kHz
Frequency Increment/Channel Step	2.5/3.125/5/6.25kHz
Operating Temperature	-22°F to 140°F (-30°C to 60°C)
Water and Dust Protection	IP67
ESD Rating	+/-4kV contact discharge and +/-8kV air discharge
Rated Audio	0.5W
Speaker Rating	2W
Air Interface Standard	DMR: ETSI TS 102 361
Signaling Options (Analog)	MDC1200, encode and decode, 2-tone decode, PL (CTCSS), DPL (DCS), Selcall
Vocoder Type	AMBE+2™
Packet Data	½ Rate, ¾ Rate, Full Rate, Single Slot

TRANSMITTER

	VHF	UHF	700/800MHz	900MHz
Frequency Ranges	136-174MHz	320-380MHz (G1) 400-470MHz (H5) 450-520MHz (H7)	762-870MHz	896-941MHz
Output Power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
FM Hum and Noise (Analog):				
25kHz 12.5kHz Channel	-45dB -40dB	-45dB -40dB	-45dB -40dB	NA -40dB
Conducted/Radiated Emissions	-36dBm	-36dBm	-36dBm	-36dBm
Audio Response	+1/-3dB	+1/-3dB	+1/-3dB	+1/-3dB
Audio Distortion (Analog)	2.5% @ 1kHz 60% deviation	2.5% @ 1kHz 60% deviation	2.5% @ 1kHz 60% deviation	2.5% @ 1kHz 60% deviation
Modulation Limiting	12.5/15kHz Channel 25/30kHz Channel			

RECEIVER

	VHF	UHF	700/800MHz	900MHz
Frequency Ranges	136-174MHz	320-380MHz (G1) 400-470MHz (H5) 450-520MHz (H7)	762-776MHz 851-870MHz	935-941MHz
Sensitivity (Analog) 12dB SINAD	-120dBm (0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)
Sensitivity (PDMR) 5% BER	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)
Intermodulation Rejection:				
EIA603D	75dB	75dB	75dB	75dB
ETS 300-113	70dB	70dB	70dB	70dB
FM Hum and Noise (Analog)	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB NA
Selectivity (Analog):				
EIA603D (2 Tone)	12.5kHz: 52dB 25kHz: 73dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB NA
ETS 300-086	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 60dB 25kHz: 70dB	12.5kHz: 60dB NA
Optional External Speaker Output	0.5W (into 16ohm balanced speaker)	0.5W (into 16ohm balanced speaker)	0.5W (into 16ohm balanced speaker)	0.5W (into 16ohm balanced speaker)
Audio Distortion (Rated Audio)	2%	2%	2%	2%

**Contact your local Harris representative for more information.

MILITARY STANDARDS 810C, D, E, F AND G

Applicable MIL-STD:	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
Humidity	507.5	2
Salt Fog	509.5	1
Dust	510.5	1
Immersion	512.5	1
Vibration	514.5	1
Shock	516.5	1, 5, 6

BATTERY

Battery:	Li-Ion Premium	Li-Ion Standard
DMR Mode Shift Life (5/5/90)	15 hours	11.5 hours
Analog Mode Shift Life (5/5/90)	12 hours	9 hours

CHARGER

Charger Options (Li-Ion) Fast desktop single charger, 6-way multi-chargers, vehicle charger

REGULATORY DATA

	USA	Canada	Europe	Australia/New Zealand
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295
UHF (320-380MHz)	NA	NA	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	NA
UHF (400-470MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	NA
UHF (450-520MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295, AS/NZS4365
700/800MHz	CFR 47	RSS-119	NA	NA
900MHz	CFR 47	RSS-119	NA	NA
Emission Designators	11K0F3E, 16K0F3E1, 6K60F2D, 7K80F2D, 9K60F2D1, 10K8F2D1, 7K60FXW, 7K60FXD			

¹Wide-band operation is not available in the USA

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.

About Harris Corporation: Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately \$7.5 billion in annualized revenue and supports customers in about 100 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems and Critical Networks.

FLORIDA | NEW YORK | VIRGINIA | BRAZIL | UNITED KINGDOM | UAE | SINGAPORE

Non-Export Controlled Information

Harris is a registered trademark of Harris Corporation.

© 2016 Harris Corporation 08/16 CS-PSPC DS1602

taic communications
The word "Tait" and the Tait logo are trademarks of Tait Limited.

HARRIS® TECHNOLOGY TO CONNECT,
INFORM AND PROTECT™

Tait Limited facilities are certified for ISO9001:2008 (Quality Management System), ISO14001:2004 (Environmental Management System) and ISO18001:2007 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. In addition, all our Regional Head Offices are certified to ISO9001:2008.