

## TP9600

### P25 Portable Radio

The L3Harris TP9600 powered by Tait, is a feature-rich portable radio delivering secure and reliable, multi-agency communications in challenging environments.



Designed for ease of use, this P25 Portable features intuitive controls and a color screen for enhanced usability. Active noise cancellation and noise suppression technologies reduce background sounds while enhancing voice transmissions, ensuring First Responders have loud and clear audio.

The TP9600 streamlines asset management with Wi-Fi® Over-The-Air-Programming capabilities, and color cover options for more efficient identification of team members. The portable is equipped with Bluetooth® wireless technology for accessory connectivity. Additional Man Down, Lone Worker and end-to-end encryption ensure emergency responders' status is always known and communications stay secure.

This multi-mode portable eases the transition from analog technologies to more spectrally efficient digital technologies including P25 Phase 2 TDMA trunking. The TP9600 is also ruggedized to meet IP68 and IP65 standards for dust and water protection and includes a premium Li-Ion battery for up to 18 hours of shift life.

The TP9600 radios are designed to meet diverse needs of a variety of organizations. They can be field-customized with a choice of cover colors and keypad options (4 or 16-key), and can be personalized with labels for fast identification of user, workgroup and organization.



## RUGGED, RELIABLE COMMUNICATIONS

### KEY BENEFITS

- > Enhance usability with color screen
- > Clearer voice in loud environments through active noise cancellation and suppression technologies
- > Multi-mode, analog and digital capabilities simplifying migration path
- > Man Down, Lone Worker function and GPS location services improve personnel safety and effectiveness
- > Wireless Over-The-Air-Programming streamlines asset management



## FEATURES AND BENEFITS\*

### ENHANCED USER EXPERIENCE

The TP9600 is designed for easy use in emergency situations

- > Large, color screen for increased clarity of messaging
- > Loud, powerful 3W speaker to hear over background noise
- > Dual mic active noise cancellation removes background noise in analog and digital modes
- > Digital noise suppression software enhances voice
- > Accessory Active Noise cancellation to enhance transmit audio clarity
- > Bluetooth® connectivity for wireless voice accessories
- > Ergonomic user-friendly design and easy-to-use controls
- > Four programmable function keys and three-way selector
- > Tailor your experience with a wide range of accessory options

### P25 CHOICE AND INTEROPERABILITY

Benefit from the spectral efficiency, multi-agency response, multi-vendor interoperability, security, migration and data capability demanded by the P25 standards

- > TIA-102 P25 CAP tested and certified, providing multi-vendor interoperability
- > P25 Phase 1 and Phase 2 options specific applications

### EXTENSIVE NETWORK CAPABILITIES

- > Future-ready, multi-mode radio supporting conventional analog, P25 conventional, P25 Phase 1 and P25 Phase 2
- > Automatic dual mode between analog and P25 Phase 1 conventional
- > Support for a variety of analog and digital simulcast modes, including LSM and C4FM
- > Voting ensures priority selection of the channel with optimum receive quality
- > Dynamic regrouping and supergroup operation for mission critical workforce management
- > Increased channel capacity with up to 2,000 channels
- > Scanning modes include: priority, dual priority, editable, zone and background scan
- > Range of analog signaling functionality, i.e. MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), 5-Tone Selcall
- > Trunked failsoft reverts to conventional operation during trunked network failure
- > Pre-set status messages
- > Conventional and trunked IP data

### PERSONALIZATION OPTIONS

- > Designated spaces for custom labels enables personalization and quick identification of radios
- > Colored radio front panels for easy identification

### IMPROVE WORKFORCE SAFETY

- > Programmable emergency key is easily accessible and highly visible
- > Man Down and Lone Worker
- > Integrated GPS option for Location Services
- > L3Harris GeoFencing option for automated location based behavior

### L3HARRIS ENABLEFLEET INDUSTRY LEADING CONFIGURATION MANAGEMENT SYSTEM

- > Total visibility of your fleet from a secure, central point of control
- > Wired connection or Over-The-Air-Programming (OTAP) to update configuration and software files
- > OTAP via P25 trunked networks
- > Wi-Fi OTAP® capability, independent of LMR mode (analog or digital, conventional or trunked)

### SECURE COMMUNICATIONS

- > Radio inhibit and uninhibit to allow management of misplaced or stolen radios
- > Supports end-to-end encryption, including AES and DES algorithms
- > FIPS 740-2 certified encryption module
- > L3Harris EnableProtect KeyFill Device, Key Management Facility and Over-the-Air Rekeying
- > L3Harris EnableProtect Advanced System Key ensures only authorized personnel can access radio software & configuration

\*Not all features are supported in all models or modes of operation. Contact L3Harris or an authorized channel partner for more details.

## SPECIFICATIONS FOR: TP9600 P25 PORTABLE RADIO

GENERAL INFORMATION	
Frequency stability	±0.5 ppm -22°F to +140°F (-30°C to +60°C)
Channels/zones	2,000 channels / 100 zones
Talkgroups	50 talk groups, up to 2,000 members total
Scan groups	300 with up to 50 members each, maximum of 2,000 members total
Bluetooth®	Supported
Encryption (via Key-Fill Device or OTAR): FIPS Certified 256-bit AES DES ARC4	Supported (P25 Operation) Supported (P25 Operation) Supported (P25 Operation)
OTAP**	Supported (P25 Trunking)
Dimensions (H x W x D): With Li-Ion slim-line battery With Li-Ion standard battery	5.71 x 2.56 x 1.61 in (145 x 65 x 41 mm) excluding knobs 5.71 x 2.56 x 1.77 in (145 x 65 x 45 mm) excluding knobs
Weight: With Li-Ion slim-line battery With Li-Ion standard battery	11.75 oz (333 g) – no antenna 13.02 oz (369 g) – no antenna
Channel spacing <sup>1</sup>	6.25/12.5/15/20/25/30 kHz
Frequency increment	2.5/3.125/5/6.25 kHz
Radio operating temperature	-22°F to +140°F (-30°C to +60°C)
Water and dust protection	IP68 & IP65
Audio output	3W
Signaling options (analog)	MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), 5-Tone Selcall
Vocoder type	AMBE+2™

TRANSMITTER			
Frequency bands	VHF	UHF	700/800MHZ
Frequency range	136–174 MHz (B1)	378–470 MHz (HK) 450–520 MHz (H7)	757–870 MHz (K5)
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
Modulation limiting: 12.5/15 kHz channel 25/30 kHz channel	±2.5 kHz ±5 kHz	±2.5kHz ±5kHz	±2.5 kHz ±5 kHz
FM hum and noise: 12.5 kHz channel 25 kHz <sup>1</sup>	-45 dB -48 dB	-45dB -48dB	-45 dB -48 dB
Radiated and conducted emissions	-75 dBc	-72 dBc	-75 dBc
Audio response (analog)	+1/-3 dB	+1/-3 dB	+1/-3 dB
Audio distortion (analog @ 1 kHz, 60% mod)	2%	2%	2%

RECEIVER*			
Frequency bands	VHF	UHF	700/800 MHz
Frequency range	136–174 MHz (B1)	378–470 MHz (HK) 450–520 MHz (H7)	757–776 MHz, 850-870 MHz (K5)
Sensitivity (analog) 12dB SINAD (TA-6031)	0.22 uV (-120 dBm)	0.22uV (-120 dBm)	0.22 uV (-120 dBm)
Sensitivity (P25) 5% BER	0.2 uV (-121 dBm)	0.2 uV (-121 dBm)	0.2 uV (-121 dBm)
Intermodulation rejection (P25) TIA-102	75 dB	75 dB	75 dB
Adjacent channel rejection 12.5 kHz (P25) TIA-102 25 kHz TIA-603 (2-tone)	60 dB 70 dB	60 dB 70 dB	60 dB 65 dB
Spurious response rejection (P25) TIA-102	75 dB	80 dB	70 dB
Residual audio noise ratio (P25) TIA-102	45 dB	45 dB	45 dB
Audio distortion (rated audio)	1.5%	1.5%	1.5%
FM hum and noise (analog) 12.5 kHz channel 25 kHz channel	-45 dB -48 dB	-40 dB -45 dB	-40 dB -45 dB

\*Rated audio (for performance testing) 0.5W

\*\*Contact L3Harris for information on Wi-Fi OTAP

## SPECIFICATIONS FOR: TP9600 P25 PORTABLE RADIO

MILITARY STANDARDS 810G					
Applicable MIL-STD	Method	Procedure	Applicable MIL-STD	Method	Procedure
Low pressure	500.5	2	Humidity	507.5	2
High temperature	501.5	1, 2	Salt fog	509.5	1
Low temperature	502.5	1, 2	Sand & dust	510.5	1, 2
Temperature shock	503.5	1	Immersion	512.5	1
Solar radiation	505.5	1	Vibration	514.6	1
Rain	506.5	1, 3	Shock	516.6	1, 4, 5, 6

BATTERY <sup>2</sup>	
<b>P25 Phase2/TDMA Mode Shift Life (5/5/90):</b> Li-Ion Performance Li-Ion Slimline	18 hours 14 hours
<b>Analog and P25 Phase 1/FDMA Mode Shift Life (5/5/90):</b> Li-Ion Performance Li-Ion Slimline	14 hours 11 hours

REGULATORY DATA <sup>3</sup>				
	USA	Canada	Europe	Australia/New Zealand
VHF (136–174 MHz)	CFR 47	RSS-119	2014/53/EU	AS/NZS4295
UHF (378–470 MHz)	CFR 47	RSS-119	2014/53/EU	AS/NZS4295 AS/NZS4365
UHF (450–520 MHz)	CFR 47	RSS-119	201/53/EU	AS/NZS4295 AS/NZS4365
700/800 MHz	CFR 47	RSS-119	NA	
Emission designators	11K0F3E, 16K0F3E <sup>1</sup> , 6K60F2D, 7K80F2D, 9K60F2D <sup>1</sup> , 10K8F2D <sup>1</sup> , 7K60FXW, 8K10F1E, 8K10F1D, 8K10F1W			

<sup>1</sup>Wideband operation is not available in the USA in some bands

<sup>2</sup>Operational shift life is dependent on model, frequency, temperature and use. Rated audio for shift-life testing is 0.5W

<sup>3</sup> Intended compliance data

Technical specifications are subject to change without notice.  
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