

TP9155/60

SPECIFICATIONS



Secure, dependable, and flexible.

With FIPS validated encryption, certified interoperability, digital audio clarity and superb build quality, the TP9155/TP9160 are tough, dependable and sophisticated portable radios.

The TP9155/TP9160 gives you the flexibility of working in digital, analog or auto sensing dual mode.



KEY FEATURES

- ▶ Tested in a Department of Homeland Security-recognized P25 Compliance Assessment Program (P25 CAP) laboratory for interoperability and performance
- ▶ Radios can be used on analog, P25 conventional, trunked and simulcast networks
- ▶ Intrinsically safe option is available
- ▶ FIPS 140-2 certified encryption
- ▶ Tested beyond MIL-STD-810 C, D, E and F – Tait performs tougher drop tests, then performs ingress and other tests on the same radio
- ▶ Configurable emergency features - Man Down and Lone Worker as standard
- ▶ A range of analog signaling features - MDC1200 encode/decode* and Two Tone decode with the purchase of software licenses**
- ▶ Comprehensive scanning features including P25 talk group
- ▶ User interface is common with the Tait P25 mobiles for ease of use

*MDC1200 decode includes calling identity display and inhibit/uninhibit functionality.

**Software license option(s) available separately





FEATURES AND BENEFITS

Encryption for secure communications

AES encryption certified by the US National Institute of Standards and Technology (NIST) or proven DES encryption can be incorporated into the TP9155/TP9160 for highly secure communications.

These radios can be encrypted fast in-field with the Tait Key Fill Device (KFD) or via Over-the-air Rekeying (OTAR) with the Tait Key Management Facility (KMF).

Interoperability assured

The TP9155/TP9160 portable radios are tested on other vendors' networks as part of the P25 Compliance Assessment Program (P25 CAP).

This offers Public Safety and Government agencies a multi-vendor environment.

Analog operation for phased transition

Protect your current analog investment and migrate to P25 digital at your own pace.

Analog mode allows communication between various partner agencies.

Configure to suit with software licenses

Software licenses allow a solution that is readily extended as needs change, removing the risk of hardware upgrades and factory returns.

Trunking, P25 CAI, encryption, location transmission/display*, Application Programming Interfaces (APIs) and OTAR are just some of the software license options available.

*Please contact your local Tait representative for more information.

Comprehensive accessory suite

Complement your public safety radio with high performance accessories and charging options that will allow frontline staff to spend more time on patrol.



Being a manufacturer of digital and analog radios, base stations and network equipment means Tait has the solution focus to serve you better.

Tait's P25 portables, mobiles and the hand-held control head all share the same intuitive interface.

GENERAL

Frequency ranges	Frequency band[†]	
VHF	136–174MHz***	
UHF	380–420MHz*** 400–470MHz*** 450–530MHz	
700/800MHz	Transmit	Receive
	762–776MHz	762–776MHz
	792–825MHz	
	851–870MHz	851–870MHz
Frequency stability	±1.5ppm (22°F to 140°F/-30°C to 60°C)	
Channel/zones	1,000 channels/30 zones	
Talk groups	26 talk group lists comprised of up to 50 members each	
Scan groups	300 with up to 50 members each, maximum of 2,000 members total	
Dimensions (DxWxH)	1.9 x 2.6 x 6.6in (47 x 67 x 167mm)	
Weight	20.4oz (580g) (includes NiMH battery) 16.4oz (480g) (includes Li-Ion battery)	
Interfaces	Four-line full dot matrix LCD	
Channel spacing	12.5/15/20/25/30kHz	
Frequency increment	2.5/5/6.25	
Operating temperature	-22°F to 140°F (-30°C to 60°C)	
Sealing	IP54 dust and rain	
Rated audio	>500mW	
Analog signalling options	MDC1200 encode/decode, Two Tone decode, PL (CTCSS), DPL (DCS)	

TRANSMITTER

	VHF	UHF	700/800MHz
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
Modulation limiting	±5kHz 25/30kHz channel ±4kHz 20kHz channel ±2.5kHz 12.5kHz channel		
FM hum and noise (typical)	-48dB 25/30kHz channel -42dB 12.5kHz channel	-41dB -37dB	-40dB -34dB
Conducted emissions (typical)	-75dBc	-75dBc	-70dBc
Audio response (analog)	12.5/15kHz 300–2550Hz +1/-3dB 25/30kHz 300–3000Hz +1/-3dB		
Audio distortion (analog)	<5% @ 1kHz, 60% modulation		
Transmit attack time (TIA/EIA 102)	50mS		
Duty Cycle	1min Tx, 4min Rx for 8hrs @ 140°F (60°C)		

RECEIVER (TYPICAL FIGURES SHOWN)

	VHF/UHF	700/800MHz
Analog sensitivity	12dB SINAD 0.28µV (-118dBm)	
Digital sensitivity (TIA/EIA-102)	5%BER 0.22µV (-120dBm)	
Intermodulation rejection (TIA/EIA 102)	-78dB	
Adjacent channel selectivity	25/30kHz channel (TIA/EIA 603) -73dB 12.5kHz channel (TIA/EIA 102) -63dB	
Spurious response rejection	-75dB	
Residual audio noise ratio (TIA/EIA 102)	45dB	
Audio distortion @ rated audio	<3%	

MILITARY STANDARDS 810C, D, E AND F

Applicable MIL-STD Method	Method	Procedure
Low pressure	500.4	2
High temperature	501.4	1, 2
Low temperature	502.4	1, 2
Temperature shock	503.4	1
Solar radiation	505.4	1
Rain	506.4	1, 3
Humidity	507.4	1
Salt fog	509.4	1
Dust	510.4	1
Vibration	514.5	1
Shock	516.5	1, 4

BATTERY

Intelligent battery options	NiMH, Standard and Intrinsically Safe (IS) 2400mAh Li-Ion 2400mAh
Battery shift life (NiMH/Li-Ion)	>12 hours 5/5/90

CHARGER

Charger options (NiMH, Li-Ion)	Fast desktop smart charger 6-way multi charger Vehicle charger
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REGULATORY DATA

USA	VHF	CFR 47 Parts 22, 74, 90, 90.210
	UHF	CFR 47 Parts 22, 74, 90, 95A, 90.210
	800MHz	CFR 47 Parts 22, 90
Canada		RSS-119
Europe		EN300 086, EN300 113, EN301 489, EN60950-01
Australia/New Zealand		A3/NZS4295
Type approval		FCC Industrie Canada NTIA
	VHF	CASTPAB1A 737A-TPAB1A 136-174MHz***
	UHF	CASTPAH5A 737A-TPAH5A 380-420MHz***
		CASTPAH6A 737A-TPAH6A 400-470MHz***
	800MHz	CASTPAK5A 737A-TPAK5A
Emission designators		10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K7F1D, 16K0F3E, 6K60F2D, 7K70F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 9K60F2D
ESD Standard		IEC 61000-4-2



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.

*Contact your local Tait representative for more information.

For further information please check with your nearest Tait office or authorized dealer.

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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.

