TP9361

INTRINSICALLY SAFE

Designed for maximum safety in thefield and enhanced usability

Intrinsically Safe Tait DMR portables are engineered to operate safely in hazardous environments, ensuring your people have communications they can depend on while they get the job done.

Built Tait Tough, the flexible TP9361 portable offers conventional and trunked DMR operation as well as full MPT 1327, and analog conventional FM in one device.

Improve workforce safety with smart features such as Location Services, Tait Geo Fencing, and Man Down functionality.

KEY FEATURES

- Intrinsically Safe portable designed to meet stringent International safety standards
- Future proof multi-mode portable (DMR Tier 2 and Tier 3, MPT 1327 and conventional analog FM)
- Provides choice and interoperability using open standard DMR protocol
- Supporting worker safety with man down alerts and built in GNSS positioning
- Internationally recognized color for intrinsic safety
- Built to last Tait Tough portables engineered for demanding environments with IP68 rating and exceeding MIL standard specification
- Complete package with accessories portfolio
- Data Services improve organizational efficiencies

FEATURES AND BENEFITS

FLEXIBLE AND EASY TO USE

- Clear communication with DMR AMBE+2™ enhanced digital vocoder and digital noise suppression software

- Four programmable function keysand three-way selector

-Tailor your experience with wide range of accessory options

- Channel Authorization for DMR Tier 2 and Tier 3 give susers confidence their call will be heard

- Proceed to Talk Tone available in all modes, for consistent operation

DMR SMART VOICE AND DATA

Benefit from the spectral efficiency, multi-vendor interoperability, security, migration and data capability of DMR open standards

- Text messaging for enhanced and unambiguous communications
- Short data messages for location, status and text
- Packet data over traffic channels for work force management and customer specific applications
- IPdatain digital trunked mode
- USBD Fast Polling - capable of 2000 polls per minute on compatible DMR Tier 3 systems

DMR SPECIFICATIONS

Tait infrastructure and terminals are designed asper the following DMR Specifications:

- ETSI TR 102 398 V1.5.1 General System Design.

- ETSI TS 102 361-1V2.6.1 DMR Air Interface(AI) protocol.

- ETSI TS 102361-2V2.5.1 DMR voice and generic services and facilities

- ETS IT S102361-3V1.3.1 DMR data protocol.

- ETSI TS 102361-4 V1.12.1 DMR trunking protocol

TP9361

INTRINSICALLY SAFE

TAIT TOUGH - DESIGNED TO PERFORM
- Water-shedding grille maintains transmitted voice clarity and high audio volume in wet environments

- IP65 & IP68 dust and water proof

- Display screen protected by recess

- Drop test exceeds MIL-STD-810G

- Shock absorbing corner protection

- Supported by arange of Tait Tough audio and carry accessories

TAIT GEOFENCING AUTOMATION
- Radios can automatically take a range of actions based on location, such as change modes, send messages, hazardous area alert, or activate lone worker features

- Independent of the network, dispatch, or any other software applications

INTERNATIONALLY RECOGNIZED IS COLOR
TheTP9361 IS model is made in the internationally recognized blue color for Intrinsically Safe portables, ensuring instant recognition in thefield.

EXTENSIVE NETWORK CAPABILITIES
- Future proof quad mode portable radio offering Trunked DMR, Conventional DMR, MPT 1327 and analog conventional FM in one device

- Roaming between MPT 1327and DMR Tier 3 trunked networks

- Roaming between Conventional FM and DMR Tier 2 Conventional networks

- Individual calls for private discussions

- Arange of call types for individual and group communication with without the distraction of irrelevant traffic

- Increased channel capacity with up to 1,500 channels

- Scanning modes include: priority, dual priority, zone, and background scan groups are editable

- PSTN dialing allows a user to make phone calls on DMR systems that support telephone interconnect

- Trunked operation allowsfor individual and private calls within designated groups

- Pre-set status messages

IMPROVE WORK FORCE SAFETY
- Programmable emergency key is easily accessible and highly visible

- Man Down and LoneWorker

- Location Services integrated GNSS option or Location Services

- Tait GeoFencing option for automated location based behavior

- Emergency calls have priority accessto trunked networks

- Blast Alarms and Audible Alertsin DMR modes

- Designed and tested to meet relevant global IS standards:
  •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

SECURE COMMUNICATIONS
- Radio inhibit and uninhibit to allow management of misplaced or stolen radios

- Configurable DMR authentication to protect network access

- Support send-to-end encryption, including DES, ARC4, or AES

- Tait Enable Protect Advanced System Key ensures only authorized personnel can access radio software and configuration

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.

TAIT ENABLE FLEET 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 DMR trunked networks

TP9361

INTRINSICALLY SAFE

GENERAL

CONVENTIONAL MODE

Network	26
Channels/zones	1,500 CHANNELS/ 100 ZONES
Scan groups	300 with up to 50 member seach

TRUNKED MODE

Network	4
Talk groups	512 talk group lists
Zones and work groups	1,000 zones, 1,000 work groups
Frequency stability	±0.5ppm(-22°Fto 140°F/ -30°Cto 60°C)
Dimensions(DxWxH) - With Li-Ion 2300 mAh battery	1.77x 2.56 x 5.35in (45x 65x 136mm) excluding knobs
Weight - WithLi-Ion 2300 mAh battery	13.93oz (395g) - no antenna,15.17oz (430g) with IS battery and antenna
Radio Operating temperature range	-20°C to 60°C (-4°F to 140°F)[T]
Water and dust protection	IP68 & IP65
ESD rating	+/- 4kV contact discharge and +/-8kV air discharge
Frequency increment/channel step	2.5/3.125/5/6.25kHz
Air interface standard	DMR: ETSI TS 102 361-1V2.6.1,-2V2.5.1,-3V1.3.1,-4V1.12.1
General system design standard	ETSI TR 102 398 V1.5.1
Signalling options(Analog)	MDC1200,encode and decode,Two tone decode, PL (CTCSS), DPL (DCS). Sel call (5- tone)
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

[T] Subject to Compliance, Ambient Temperature: T4 -20°C < Ta < +50°C , T3-20°C < Ta < +60°C

TRANSMITTER	VHF	UHF	700/800 MHZ
Frequency range	136-174 MHZ (B1) 174-225 MHZ (C0)	378-470 MHZ (HB) 450-520 MHZ (H7)	762-870 MHZ (K5)
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	2.5W, 2.5W, 2W, 1W
FM Transmit Deviation (12.5kHz / 25kHz channels)	2.5/ 5KHZ	2.5/ 5KHZ	2.5/ 5KHZ
FMhumand noise (analog)			
12.5kHz channel	-40dB	-40dB	-40dB
25kHz channel[1]	-45dB	-45dB	-45dB
Conducted / radiated emissions	-36dBm<1GHZ, -30DBM>1GHZ	-36DBM<1GHZ -30DBM>1GHZ	-20DBM
Audio response	+1/-3DB	+1/-3DB	+1/-3DB
Audio distortion (Analog)	2.5%	2.5%	2.5%

TP9361

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RECEIVER	VHF	UHF	700/800 MHZ
Frequency range	136-174 MHZ (B1) 174-225 MHZ (C0)	378-470 MHZ (HB) 450-520 MHZ (H7)	762-776&850-870 MHZ (K5)
Channel Spacing *	6.25/12.5/25KHZ	6.25/12.5/25KHZ	6.25/12.5/25KHZ
Sensitivity (typical)			
Analog (12dB SINAD)	-120dBm(0.22uV)	-120dBm(0.22uV)	-120dBm(0.22uV)
DMR (1%BER(ETS300-113))	-119dBm(0.25uV)	-119dBm(0.25uV)	-119dBm(0.25uV)
DMR (5%BER)	-123dBm(0.16uV)	-123dBm(0.16uV)	-123dBm(0.16uV)
Intermodulation rejection (TIA603E)	75dB	75dB	75dB
Intermodulation rejection (ETS300)	65dB	65dB	65dB
Selectivity (Analog)			
TIA603E (2 TONE)	12.5KHZ: 50dB 25KHZ: 70dB	12.5KHZ: 50dB 25KHZ: 70dB	12.5KHZ: 50dB 25KHZ: 70dB
ETS 3000-086 & TIA603E 1Tone	12.5KHZ: 52dB 25KHZ: 73dB	12.5KHZ: 50dB 25KHZ: 70dB	12.5KHZ: 60dB 25KHZ: 70dB
FM hum and noise (Narrowband / Wideband)	-40dB/ -45dB	-40dB/ -45dB	-40dB/ -45dB
Spurious Rejection (TIA603E)	70dB	70dB	70dB
Conducted Emissions(TIA603E)	70dB	70dB	70dB
Rated Audio (Internal)	0.5W	0.5W	0.5W
Audio Response (TIA603E)	+1/-3dB	+1/-3dB	+1/-3dB
Audio Distortion (Rated audio)	2%	2%	2%

*Wideband operation subject to FCC regulations
1Wideband operation is not available in the USA in some bands

CHARGER AND BATTERY

Charger options (Li-Ion)	IS compatible desktop and vehicle chargers
Battery shift life (DMRmode, standard config)	Li-Ion 2300 mAh 15hours(5/5/90)*
Battery shift life (Analog mode, standard config)	Li-Ion 2300 mAh 11.5hours (5/5/90)

*Battery performance is dependent on frequency, temperature, and operational configuration.

MILITARY STANDARD S810C, D, E, FAND G

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	516.5	1,4,5,6

TP9361

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REGULATORY DATA	USA (FCC)	CANADA (ISED)	EUROPE(CE)	AUSTRALIA/NEWZEALAND(AS/NZ)
VHF (136 -174MHz)	●	●	●	●
UHF (320-380MHz)	–	–	●	–
UHF (378-470MHz)	●	●	●	●
UHF (450-520MHz)	●	–	–	●
800MHz	●	●	–	–

IS COMPLIANCE*	OUTPUT POWER	USA	CANADA	EUROPE(CE)	AUSTRALIA/NEWZEALAND(AS/NZ)
VHF(136-174MHz)	15W	Class I Zone1, AEx ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1	II 2 G Ex ib IIA T4...T3 Gb	Ex ib IIA T4...T3Gb
	1W	Class I Zone1, AEx ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1	II 2 G Ex ib IIC T4...T3 Gb	Ex ib IIC T4...T3Gb
UHF (320-380 MHz)	1-4 W 1 W			II 2 G Ex ib IIAT4...T3 Gb II 2 G Ex ib IICT4...T3 Gb	
VHF(380-470 MHz)	1-4 W	Class I Zone1, AEx ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1	II 2 G Ex ib IIA T4...T3 Gb	Ex ib IIA T4...T3Gb
	1W	Class I Zone1, AEx ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1	II 2 G Ex ib IIC T4...T3 Gb	Ex ib IIC T4...T3Gb
VHF(450-520 MHz)	1-4 W	Class I Zone1, AEx ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1			Ex ib IIA T4...T3Gb
	1W	Class I Zone1, AEx ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1			Ex ib IIC T4...T3Gb
800 MHz	1-2.5W	Class I Zone1, AEx ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIA T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1		Ex ib IIA T4...T3Gb
	1W	Class I Zone1, AEx ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II, Div 2, Group E, F, G Class III, Div 1	Ex ib IIC T4...T3Gb Class I Div 2, Group A, B, C, D Class II Div 2, Group E, F, G Class III, Div 1		Ex ib IIC T4...T3Gb