TEAM COMMS
FUTURE PROOF & AFFORDABLE

Tait OpenTrunk

Tait OpenTrunk solutions help teams stay connected, safe and productive on busy sites and over wide areas. Simple to use, highly reliable and affordable for small and medium sized organizations.

tait
communications

KEEPING YOU SAFE AND ON-MISSION

Unleash your team's potential with fit-for-purpose, critical communications solutions from Tait.

For more than 50 years, Tait Communications has been designing, delivering and supporting critical communications networks for public safety, transportation and utility customers around the world.

Tait Communications helps teams stay safe and on mission when the pressure is on. From comprehensive radio networks with advanced data capabilities to support and managed services, you can trust Tait. Designed and manufactured at our global headquarters in Christchurch, New Zealand, we put team safety at the top of our agenda day in, day out.

We believe we can make the world a safer, better and more efficient place and we're always looking for new ways to improve the lives of our customers and the communities they serve. This is a testament to our commitment to innovating within open standards, providing unmatched interoperability and better safety outcomes.

Tait solutions are customizable, versatile, flexible and built for every challenge. We uphold the principles of our founder, Sir Angus Tait:

" IF IT CAN SAVE A LIFE, MAKE IT TOUGH ENOUGH TO SURVIVE ANYTHING.

Tait OpenTrunk is a simple, affordable communications solution that brings the power of DMR Tier 3 trunking to small and medium sized organizations.

WHY CHOOSE
DMR OPEN STANDARD SOLUTIONS?

Digital Mobile Radio (DMR) is an open standard that enables a multivendor ecosystem of compatible equipment and applications.

Freedom of Choice, Value for Money

Over many years, Tait has earned a reputation for genuine commitment to standards-based solutions that benefit our customers. Open standards protect your freedom to choose the vendors, devices and applications that best meet your needs, delivering value for money from competitive procurement and throughout the life of your investment.

DMR Tier 2 and Tier 3 Standards

Tait provides a range of solutions for the two professional tiers defined by the DMR standards:

- Tier 2 Conventional
- Tier 3 Trunking

In DMR Tier 2 Conventional systems, radio users must know which channel they need, manually select it and wait if the channel is busy.

In DMR Tier 3 Trunked systems users are automatically assigned the first available channel, which is ideal for busy networks with multiple work groups. DMR Tier 3 systems also enable a range of advanced functionality to effectively manage sophisticated voice and data features.

Tait has been designing, deploying and supporting DMR Tier 3 solutions since 2012 and continues to innovate to deliver more for our customers.

WHY CHOOSE
TAIT OPENTRUNK

Safer, More Productive Teams

Tait OpenTrunk provides advanced communication capabilities to keep personnel safe, including pre-emption and call interrupt for emergencies, Man Down, Location Services and Tait GeoFencing.

Flexible and Future Proof

Tait solutions can be tailored to suit your needs and are designed to evolve as your operation grows and changes over time. Tait OpenTrunk solutions easily scale from single site to wide area communications to provide the capacity and coverage you need.

Simple and Affordable

Tait OpenTrunk solutions are designed to be easy to install, use, and maintain, with transparent pricing that keeps you free from unexpected costs.

Security and Network Management

Advanced security features such as authentication protect your staff and sensitive information, while network management capabilities make it easy to resolve issues and modify the network if needs change over time.

Tait OpenTrunk Solutions include:
- Portable radios & accessories, including Bluetooth®
- Mobile radios
- Repeaters for scalable coverage & capacity from 1-16 sites
- Worker Safety Automation (Man Down, Lone Worker)
- Location Services Options (Indoor & Outdoor)
- Dispatch Console Options
- Over The Air Programming
- System Monitoring & Support options

Tait OpenDMR

Entry Level	Mid Level	Advanced Level
Enterprise Solutions	Enterprise Solutions	Critical Comms and Specialty Solutions
DMR Tier 2 Conventional	DMR Tier 3 Trunking	

Tait OpenTrunk   **Tait** OpenPeak

Tait OpenTrunk provides effective communications solutions for a wide range of organizations, including...

SCHOOLS

RETAIL

TRANSPORT

MANUFACTURING

LOGISTICS

HOSPITALITY

Tait OpenTrunk

NETWORK

TB7300 Base Station / Repeaters

APPLICATIONS

Dispatch & Mapping

Tait EnableFleet

TERMINALS
& ACCESSORIES

TM9000 Mobile Radios

TP9000 Portable Radios

COMPLETE SOLUTIONS

Tait OpenTrunk supports a range of compatible applications to help you connect with and manage your workforce, enabled by the DMR standard Application Interface Specifications (AIS).

Location Services Options

Tait provides solutions for both outdoor and indoor Location Services.

Outdoor Location
Choose from a range of compatible mapping applications using the open standard DMR AIS interface. Tait OpenTrunk portables and mobiles have a built in GNSS receiver and antenna.

Tait GeoFencing Option: Location based workflow automation
Location data triggers pre-configured actions in a radio, such as changing channels or networks, activating Lone Worker Mode, alerting control room staff when workers enter a hazardous area, or alerting workers to required actions for the area they've entered.

Indoor Location Option
A iBeacon is a low cost, low power Bluetooth® device that can be easily installed at indoor location checkpoints such as walls and doorways. The iBeacons continuously broadcast a signal that can be detected by Tait radios. When a Tait portable radio is within proximity of an iBeacon a location update will be sent over the Tait network to a mapping application.

Easy Fleet Management Options

As your business grows or your needs change you can easily adapt your communications to improve your operations. When connected to Tait EnableFleet you can easily change radio settings or upgrade to the latest software features with wireless Over The Air Programming (OTAP).

PORTABLE RADIOS

Available in North America and Europe, the **TP93T5** is ideal for Tait OpenTrunk solutions. This Tait Tough portable is built to last, with an excellent balance of features and affordability. It is an ideal choice for organizations seeking easy to use, reliable communications.

- Tait Tough design & quality
- IP68 dust and water proof
- Multiline display with menu navigation
- 2 programmable function buttons
- Continuous rotation top selector
- 5W VHF, 4W UHF

- 2W speaker
- Bluetooth®
- Worker Safety Automation with Mandown and Lone Worker features
- Location Services (Outdoor & Indoor)
- Tait GeoFencing option

AUDIO ACCESSORY OPTIONS

| Speaker Microphones | Earpieces | Headsets | Bluetooth® PTT & Earpiece |

BATTERY CHARGING OPTIONS

| Single Charger | 6 Bay Charger | Vehicle Charger |

*Refer to the **Tait Portable Options and Accessories** catalog to see the full range of audio, carry and charging accessories.*

MOBILE RADIOS

The **TM9315** is a proven mobile radio that provides high powered coverage for vehicle or desktop communications. This reliable radio combines a simple, easy to use interface with the enhanced capabilities of DMR Tier 3 trunking.

- 2 digit display with scrolling selector
- 4 programmable function keys
- 50W VHF, 40W UHF
- 3W speaker built-in, optional 15W rugged external speaker
- Worker Safety Automation with Lone Worker feature
- Location Services options (outdoor)
- Tait GeoFencing option

All Tait 9000 series DMR Tier 3 enabled radios and accessories are compatible with Tait OpenTrunk, if more options are required.

HIGHLY FLEXIBLE, SCALABLE SYSTEMS

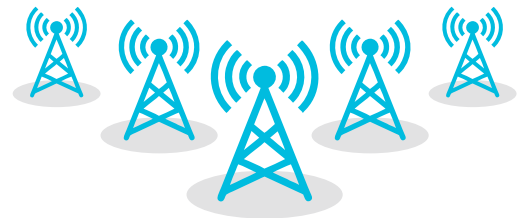Tait OpenTrunk can be deployed as a single site system and can scale cost effectively up to 16 sites.

IDEAL FOR HIGH CAPACITY SINGLE SITES

UP TO 8 X TB7300 RF CHANNELS PER SITE

SCALABLE MULTISITE OPERATION FOR WIDE AREA COVERAGE

UP TO 16 SITES

Tait OpenTrunk Base Station / Repeater

The Tait TB7300 offers great value in a small package with its scalability and industry-leading performance, delivering flexible deployment options to meet diverse operational needs.

For clients requiring higher power output or different power input options, the Tait TB9400 can be used.

Simplified UI

Tait OpenTrunk makes network management easy with a clean, intuitive interface. It streamlines everyday management tasks to keep teams focused on what matters.

Advanced Security

The Tait node enables advanced security features, protecting staff and sensitive information. Authentication and registration ensure only authorized devices can access the system, while stun and revive functions let organizations quickly disable and restore lost radios.

System Monitoring & Support Options

Tait OpenTrunk offers network management and reporting capabilities, providing clear visibility into your communications network. This gives you the insight to resolve problems fast, track usage trends, and make confident decisions about your communications.

Self-monitoring software options:

- Tait EnableMonitor
- Tait EnableInsight

Tait supports SNMP v3 to connect to other monitoring applications.

Support & Managed Services

- Tait Assurance – extended warranty for your devices and software and includes online assistance
- Tait Advantage – extended warranty, technical support, remote diagnostics, break/fix support
- Tait Manage – 24x7 system monitoring and proactive support from Tait staff and your Tait authorized dealer

TP93T5 PORTABLE SPECIFICATIONS

GENERAL	
Bluetooth®	Supported (for audio accessories and iBeacon reporting)
Encryption	ARC4, DES
Over The Air Programming (OTAP)	Supported (via DMR Tier 3 network, required Tait EnableFleet)
Dimensions (DxWxH)	
With Li-Ion Slimline battery	1.61 x 2.56 x 5.35in (41 x 65 x 136mm) excluding knobs
With Li-Ion High Capacity battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) excluding knobs
Weight	
With Li-Ion Slimline battery	11.46oz (325g) – no antenna
With Li-Ion High Capacity battery	13.52oz (385g) – no antenna
Battery shift life (DMR mode 5/5/90)	16 hours with Slimline battery, 27 hours with High Capacity battery
Supported Languages	English (default), Czech, French, German, Spanish, Polish, Portuguese, Russian
Water and dust protection	IP68 & IP65
Channel Spacing [1]	6.25/12.5/15/20/25/30kHz
Frequency increment/channel step	2.5/3.125/5/6.25kHz
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
Operating temperature	-22°F to 140°F (-30°C to 60°C)
ESD rating	+/-4kV contact discharge and +/-8kV air discharge
Rated audio	0.5W
Speaker rating	2W
Air interface standard:	DMR: ETSI TS 102 361-1 V2.6.1, -2 V2.5.1, -3 V1.3.1, -4 V1.12.1
General system design standard	ETSI TR 102 398 V1.5.1
Signaling options (Analog)	MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS). Selcall
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

TRANSMITTER	VHF	UHF
Frequency range	VHF: 136-174MHz (B1)	UHF: 378-470MHz (HK), 450-520MHz (H7
Output power (nom)	VHF: 5W, 3W, 2W, 1W	UHF: 4W, 2.5W, 2W, 1W
FM hum and noise (Analog)	-40dB (12.5kHz),-45dB (25kHz)	
Conducted/radiated emissions	-36dBm	
Audio response	+1/-3dB	
Audio distortion (Analog)	2.5% @1kHz, 60% Deviation	
Modulation limiting [1]	2.5kHz on 12.5/15kHz channel and 5kHz on 25/30kHz channel	

RECEIVER	VHF	UHF
Frequency range	VHF: 136-174MHz (B1)	UHF: 378-470MHz (HK), 450-520MHz (H7)
Sensitivity (typical)		
Analog (12dB SINAD)	-120dBm0.22µV)	
DMR (1% BER (ETS300-113))	-119dBm (0.25µV)	
DMR (5% BER)	-123dBm (0.16µV)	
Intermodulation rejection	75dB (EIA603E), 70dB (ETS 300-113)	
FM hum and noise (Analog)	-40dB (12.5kHz), -45dB (25kHz)	
Selectivity (Analog)		
EIA603E (2 Tone)	VHF: 52dB (12.5kHz), 73dB (25kHz)	UHF: 50dB (12.5kHz), 70dB (25kHz)
ETS 300-086	VHF: 62dB (12.5kHz), 73dB (25kHz)	UHF: 62dB (12.5kHz), 73dB (25kHz)
Audio distortion (rated audio)	2%	

TP93T5 PORTABLE SPECIFICATIONS continued

MILITARY STANDARDS 810C, D, E, F AND 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	516.6	1, 4, 5, 6

REGIONAL AVAILABILITY AND REGULATORY COMPLIANCE
Available in USA (FCC), Canada (ISED) and Europe (CE)

[1] Wideband operation is not available in the USA in some bands

TB7300 SYSTEM SPECIFICATIONS

FREQUENCY BAND			
Frequency	Range	Tait Band	Configuration
VHF	136-174MHz	B1	50W*
UHF	400-470MHz	H5	40W*
470-520MHz	H3		40W*
* Note: please check the specification manual for the exact value tolerance			

REGIONAL AVAILABILITY AND REGULATORY COMPLIANCE BANDS
Regulatory USA (CFR 47), Canada (RSS-119)

GENERAL	
Frequency stability	+/- 0.5 ppm
Channels	4,000
Channel spacing	12.5kHz and 25kHz** in analog 12.5kHz provides 2 TDMA voice or data channels (6.25kHz equivalent) in DMR mode
Frequency increment/channel step	VHF 2.5/3.125kHz (or multiples of), UHF 5/6.25kHz
External frequency reference	10MHz/12.8MHz (auto detect)
DMR Packet data	½ Rate, ¾ Rate, Full rate, Single Slot
Dimensions (HxWxD)	1U Rack Space, 1.7 x 19 x 15.8in (44 x 483 x 400mm)
Weight	AC: 17.2lb (7.8kg), DC: 14.8lb (6.7kg)
Operating temperature	-22° to +140°F (-30° to +60°C)
Power Supply	AC: 120V to 230V AC 50/60Hz*** DC: 13.8V Typical (11 - 15 VDC range)*
Connectors	Transmitter N-type female Receiver BNC female External reference frequency input BNC female 1 PPS input BNC female Network ethernet port RJ45 Serial port RJ12 Analog line and I/O connector 25-way D-range AC input IEC connector DC input Screw terminal
Modulation types	4FSK, FM, C4FM
Air interface standard:	DMR: ETSI TS 102 361-1 V2.6.1, -2 V2.5.1, -3 V1.3.1, -4 V1.12.1
General system design standard	ETSI TR 102 398 V1.5.1

TB7300 System Specifications continued

TRANSMITTER	
Output power (100& duty cycle)	VHF Programmable 2-50W
	UHF Programmable 2-40W
Modulation fidelity	(TIA-102) <2%
Adjacent channel power	12.5kHz static 60dB, complies with EN 300 113 v2.2.1 (DMR)
Conducted spurious emissions	VHF <-36dBm 9kHz to 1GHz and <-30dBm 1GHz to 4GHz
	UHF <-36dBm 30MHz to 1GHz and <-30dBm 1GHz to 4GHz/12.75GHz
Power Consumption	Standby DC: 0.83A, 11.5W @ 13.8V AC 20W @ 120/230V
	Tx @ 50W DC: 9.6A, 133W @ 13.8V AC 200W @ 120/230V
RECEIVER	
Radiated spurious emissions EIA-603-D	<-57dBm EIRP to 1GHz
Conducted spurious emissions	<-90dBm to 2GHz
DMR Sensitivity	-122dBm (0.18uV) @ 5%BER
DMR Unfaded sensitivity ETS 300 113	Typical -122dBm (0.18µV) @ 1% BER
Guaranteed -120dBm (0.22µV) @ 1% BER	
DMR Selectivity ETS 300 113 @ 1% BER	≥82dB (VHF), ≥79dB (UHF)
DMR Intermodulation response attenuation	≥78dB @ 1% BER unfaded
DMR Blocking rejection > 1MHz	100dB @ 1% BER

WE GO BEYOND FOR A SAFER WORLD.

CONTACT YOUR LOCAL DEALER FOR MORE INFORMATION
TAITCOMMUNICATIONS.COM/CONTACT

Tait has taken every care in compiling this brochure, but we're always innovating and therefore changes to our models, designs, technical specifications, visuals and other information included in this brochure could occur. For the most up-to-date information and for a copy of our terms and conditions please visit our website.

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Quality
Management
ISO 9001

Environment
Management
ISO 14001:2015

Occupational
Health & Safety
Management
ISO 45001:2018

Tait Communications

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