



TB2210 REPEATERS

KEEP BUSINESS MOVING FORWARD

The Tait TB2210 repeater enhances the safety and productivity of your teams over a wider area of operations. This compact and cost-effective solution expands your coverage with support for analog and digital communications.

tait
communications

FEATURES AND BENEFITS

PROFESSIONAL 1U DESIGN

Slimline 1U design saves installation space and includes both AC and DC capability.

OUTSTANDING HEAT DISSIPATION

The unique cooling design combines a built-in heat sink and three fans to ensure efficient heat dissipation, preventing the repeater from over-heating in high output power mode.

SMART DIGITAL-ANALOG AUTO DETECTION

The TB2210 can be configured to analog, digital or mixed mode. In mixed mode, the repeater can dynamically switch between modes based on received signal type.

ACCESSORY EXPANSION

Third party development is supported via a rear port of the repeater. This is achieved via the pin control through the repeater rear port.

IP MULTI-SITE CONNECT

TB2210 repeaters can be connected via TCP/IP network to expand the coverage area, working in digital or analog mode.

LED INDICATOR

Nine LEDs indicate different statuses such as power-on, analog repeating, digital repeating, transmitting, receiving and alarm.

AIS/SIP INTERFACE

The TB2210 provides AIS/SIP second development interface, allowing dispatch, telephone system and other facilities to be developed by third parties.

REMOTE MONITORING AND DIAGNOSTICS

Support for remote monitoring, diagnostics, and status control.

CONTINUOUS WAVE IDENTIFICATION (CWID)

Support for analog transmission of the repeater identification in Morse code format.

TECHNICAL SPECIFICATIONS

GENERAL INFORMATION	
Frequency Range	136-174MHz, 400-470MHz
Channel Capacity	64
Channel Spacing	25kHz / 20kHz / 12.5kHz
Operating Voltage	AC and DC (DC cable not included) DC: 13.6V±15% AC: 100-250V 50/60Hz
Current Drain	Standby: 1.0A Transmit: 12.0A
Frequency Stability	0.5ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Dimensions (H x W x D)	482.6mm x 450.0mm x 44.0mm (19.00in x 17.72in x 1.73in)
Weight	11.2kg (24.7lb)

RECEIVER	
Sensitivity	Analog: 0.22μV / -120dBm @ 12dB SINAD Digital: 0.22μV / -120dBm @ 5% BER
Selectivity	70dB @ 12.5kHz, 75dB @ 20/25kHz (TIA-603) 70dB @ 12.5kHz, 75dB @ 20/25kHz (ETSI)
Spurious Response Rejection	75dB @ 12.5/20/25kHz (TIA-603) 70dB @ 12.5/20/25kHz (ETSI)
Intermodulation	70dB @ 12.5kHz/25kHz (TIA-603) 65dB @ 12.5kHz/25kHz (ETSI)
Hum and Noise	-40dB @ 12.5KHz, -45dB @ 20/25KHz
Rated Audio Power Output	0.5W (via R9 external interface, speaker not included)
Rated Audio Distortion	3% (typical)
Audio Response	+1/-3dB
Conducted Spurious Emission	-57dBm @ <1GHz, -47dBm @ >1GHz

TRANSMITTER	
RF Power Output	High Power: 40W UHF / 45W VHF
FM Modulation	11K0F3E @ 12.5kHz, 14K0F3E @ 20kHz; 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data: 7K60F1D & K60FXD 12.5kHz Voice: 7K60F1E & 7K60FXE Combination of 12.5kHz Voice and Data: 7K60F1W
Modulation Limiting	±2.5kHz @ 12.5kHz, ±4.0kHz @ 20kHz, ±5.0kHz @ 25kHz
FM Hum & Noise	-40dB @ 12.5kHz, -45dB @ 20kHz / 25kHz
Adjacent Channel Power	-60dB @ 12.5kHz, -70dB @ 20kHz / 25kHz
Audio Response	+1/-3dB
Audio Distortion	3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3,-4

ENVIRONMENT SPECIFICATIONS	
Operating Temperature	-30°C to +60°C (-22°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
ESD	IEC610000-4-2 (Level 4) ±4kV (Contact) ±8kV (air)
Humidity	MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	MIL-STD-810 C/D/E/F/G Standard

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