

ROHDE & SCHWARZ

CBT32

The Rohde & Schwarz CBT32 is a compact, headless Bluetooth tester optimized for automated production environments. Designed as a 2 HU 19-inch rackmount unit, it provides fast, reliable, and comprehensive RF tests on Bluetooth devices, supporting Basic Rate (BR), Enhanced Data Rate (EDR), and Low Energy (LE) connections with optional hardware and software extensions.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), LAN (Ethernet), USB, RS-232
Display	None (headless 19-inch rackmount instrument)
Warm-up Time	30 min

Physical

Power Supply	100 V to 240 V AC, 50 Hz to 60 Hz / 400 Hz
Operating Temperature	+5 °C to +45 °C °C
Dimensions (W×H×D)	427 mm × 97 mm × 426 mm mm
Weight	6 kg kg
Form Factor	19" rackmount, 2 HU

RF Hardware Performance

Frequency Range	2.400 GHz to 2.485 GHz
RF COM Output Power Range	-120 dBm to 0 dBm
RF OUT Output Power Range	-120 dBm to +13 dBm
RF COM Input Power Range	-60 dBm to +30 dBm
RF Output Power Resolution	0.1 dB
VSWR at RF COM Port	< 1.2
VSWR at RF OUT Port	< 1.3
Reference Frequency Input	10 MHz (BNC)
Reference Frequency Output	10 MHz (BNC)

Bluetooth Technology Support

Supported Specifications	v1.1, v1.2, v2.0 + EDR, v2.1 + EDR, v3.0 + HS, v4.0, v4.1, v4.2 (option dependent)
Basic Rate (BR) Support	Yes
Enhanced Data Rate (EDR) Support	Yes (with CBT-K55 option)
Bluetooth Low Energy (LE) Support	Yes (with CBT-K57 option)
LE 1M PHY Support	Yes
LE 2M PHY Support	No

Transmitter (TX) Measurement Parameters

Nominal Output Power	Yes
Peak Power	Yes
Modulation Characteristics df1avg	Yes
Modulation Characteristics df2max	Yes
Modulation Characteristics df2avg Ratio	Yes
Initial Carrier Frequency Tolerance (ICFT)	Yes
Carrier Frequency Drift	Yes
EDR Relative Transmit Power	Yes (with CBT-K55 option)
EDR Carrier Frequency Stability and DEVM	Yes (with CBT-K55 option)
EDR Differential Phase Encoding	Yes (with CBT-K55 option)
EDR In-Band Spurious Emissions	Yes (with CBT-K55 option)
LE In-Band Spurious Emissions	Yes (with CBT-K57 option)

Receiver (RX) Measurement Parameters

Single-slot Sensitivity (BER/PER)	Yes
Multi-slot Sensitivity (BER/PER)	Yes
Maximum Input Level	Yes
LE Receiver Sensitivity	Yes (with CBT-K57 option)
Packet Error Rate (PER) Report Accuracy	Yes

Signaling and Connection Modes

Connection Establishment	Yes (Signaling Mode)
Direct Test Mode (DTM)	Yes (Non-signaling Mode)
Loopback Test Mode	Yes
Audio Link Support	Yes (SCO, eSCO with CBT-B41 option)
Speech Codecs Support	CVSD, A-law, μ -law (with CBT-B41 option)

Audio Generator and Analyzer

Audio Channels	1 input channel, 1 output channel (with CBT-B41 option)
Audio Generator Frequency Range	20 Hz to 20 kHz (with CBT-B41 option)
Audio Analyzer Input Voltage Range	up to 10 V RMS (with CBT-B41 option)

System Interfaces & Connectivity

Primary RF Input/Output Port	RF COM (N-type female)
Secondary RF Output Port	RF OUT (N-type female)
GPIB Interface	IEEE-488.2
LAN Interface	10/100 Base-T (RJ-45)
USB Ports	Type A (host), Type B (device)
Serial Port	RS-232-C (9-pin D-Sub)
Trigger Input/Output Ports	BNC female

Control & Software Features

Command Set	SCPI compatible
Control Software	R&S CBTGO

Power, Environmental & Physical

Storage Temperature Range	-40 °C to +70 °C
Cooling	Forced-air (fan-cooled)

Standards, Compliance & Calibration

Calibration Interval	1 year
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Reference Frequency

Internal Reference Frequency Aging	1×10^{-6} per year (standard) / 1×10^{-7} per year (with Option CBT-B1)
Internal Reference Frequency Temperature Drift	1×10^{-6} (0 °C to 50 °C, standard) / 1×10^{-8} (with Option CBT-B1)

RF Ports

RF Port Impedance	50 Ω
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Compliance

EMC Compliance	In line with EN 61326-1 (Class A), EN 55011 (Class A)
Safety Compliance	In line with EN 61010-1

Power Supply

Power Supply Frequency	50 Hz to 60 Hz / 400 Hz
Max Power Consumption	120 W

Audio Analyzer

Audio Analyzer Frequency Range	10 Hz to 20 kHz
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Audio Generator

Audio Generator Output Impedance	< 10 Ω
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TECHNOLOGY

Bluetooth Test Equipment

APPLICATIONS

Automated Production RF Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.