R&S®CMW290 Functional Radio Communication Tester

Perfect low cost solution for all things — IoT



The perfect choice for	
RF parametric and	Functional testing
preconformance	(audio, video, data
testing	throughput)
Power consumption	IP security
Rench-ton antenna performance testing	

and co-existence verification

Key specifications	
Frequency range	70 MHz to 6 GHz
RF bandwidth (generation/analysis)	40 MHz/80 MHz
Supported radio access technologies	LTE Rel 8, eMTC, NB-IoT, HSxPA, WCDMA, GSM, TDSCMA, Wi-Fi (a,b,g,n,ac) Bluetooth LE, ZigBee (future)
Test modes	non-signaling, real-time base station emulation, data throughput testing
MIMO support	2x2 MIMO

Truly cost effective and versatile

The R&S°CMW290 offers wireless design engineers and manufacturers of IoT devices a cost-effective, turnkey solution for verifying the overall functionality of their devices prior to launch, addressing key applications such as RF parametrics, user experience (audio, video, data throughput, power consumption), cybersecurity and antenna performance. Covering a wide range of radio access technologies with the ability to provide real-time emulation, users are able to test and verify their devices in an environment as close as possible to the environment in which the devices will be deployed.

The built-in automation software together with the prepackaged technology software bundles allows users to streamline their testing requirements while controlling the overall equipment cost.

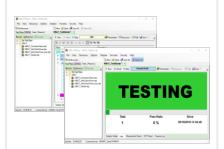
Your benefit	Features
Lower overall cost	 Bundled hardware and software options geared towards key IoT applications
Multi Technology Coverage	■ Embedded emulator for all major radio access technologies, including newly released eMTC, and NB-IoT functionality
User experience testing right out of the box	Embedded data application server for throughput testingAudio generation and analysis
IP security	■ Embedded deep packet inspection capability for in-depth IP analysis that provides information about IP protocols, ports and encryption while in a wireless connection

For more information, visit https://www.rohde-schwarz.com/catalog/cmw290





Test sequencing/automation for RF parametric testing



RF parametric testing with built-in R&S®CMWRun automation software for easy sequencing, testing and reporting

Over-the-air test for antenna performance



The R&S®CMW290 in combination with the R&S®DST200 or R&S®CMW-Z10 shielded box provides an environment conducive to evaluating IoT device antenna performance under controlled conditions with repeatable characteristics

Turnkey solution for power measurements



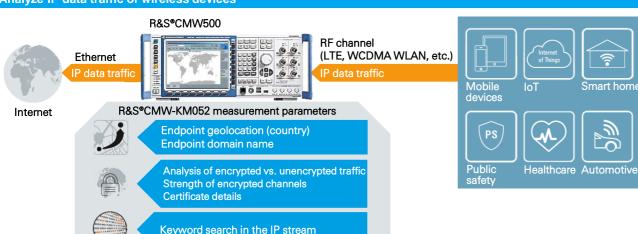
Combined with the R&S®RT-ZVC multichannel probe, precise measurements of current, voltage and power can be made while being tightly synchronized with network signaling events

Typical configuration Mainframe Type R&S®CMW-PS291 Basic assembly Software options NB-IoT test bundle R&S®CMW-PK293 GSM/WCDMA test bundle R&S®CMW-PK294 LTE/eMTC test bundle R&S®CMW-PK295 Bluetooth® low energy test bundle R&S®CMW-PK296 WLAN IEEE 802.a/b/g/n test bundle R&S®CMW-PK297 CDMA2000®/1x EVDO test bundle R&S®CMW-PK298 **Optional items** Data application server R&S®CMW-B450D Data application test bundle R&S®CMW-PK292

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Analyze IP data traffic of wireless devices



The R&S°CMW290 equipped with the R&S°CMW-KM052 IP connection security analysis option enables users to identify vulnerabilities in an IoT device's IP connection security at an early stage of development

Compact solution for functional video, audio & data throughput testing



Embedded data application server enables a compact out-ofthe-box solution for testing the audio, video and data throughput functionality of IoT devices

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Device under test IP port analysis