



RTX2012HS
DECT RF TEST PLATFORM
WHITE PAPER

The RTX2012HS is an RF test platform for DECT/DECT 6.0/CAT-iq & Japan DECT. The RTX2012HS performs tests significantly faster than any other DECT tester.

PERFORMANCE

DECT has become a mature technology with a global acknowledgement of the many appreciated features connected to this technology. A modern off-spring from DECT is HD Voice (CAT-iq) which is on its way to become a market demand.

Despite the fact that both technologies are used worldwide by global brand owners there is a lack of appropriate production test solutions aimed at high-quality high-volume products. With the RTX2012 HS RF tester this gap has been filled.

Thorough testing of DECT equipment normally requires 3 tests on European DECT band or 2 on US DECT band or 5 tests for multiband equipment. Thus the time savings must be multiplied with the total number of tests for each product. And the more you test, the higher efficiency improvement. In a high-throughput production even seconds will count and sum up to significant improvements.

RTX2012HS show its performance especially in the execution of TX measurement where the parallel measurement capability reduces the test time drastically as shown in the benchmark for the transmitter test.

BENCHMARKING*

SPECIFICATIONS	RTX2012HS DECT	RTX2012HS CAT-IQ	INDUSTRY STD
ESTABLISH CONNECTION	3.34 sec	3.34 sec	3.23 sec
B FIELD	1.22 sec	0.63 sec	0.48 sec
NTP	0 sec	0 sec	0.79 sec
OFFSET	0 sec	0 sec	0.46 sec
DRIFT	0 sec	0 sec	0.44 sec
POWER TEMPLATE	0.14 sec	0.11 sec	0.08 sec
BER	3.36 sec	1.86 sec	4.03 sec
MIN JITTER	0.02 sec	0.02 sec	0.51 sec
MAX JITTER	0 sec	0 sec	0 sec
TIME ACCURACY	0.03 sec	0.02 sec	0.43 sec
CHANGE CHANNEL	2.58 sec	2.63 sec	2.69 sec
TEST SEQUENCE FOR 1 CH	8.12 sec (-22%)	6.05 sec (-42%)	10.46 sec
TEST SEQUENCE FOR 5 CH	37.58 sec (-25%)	27.52 sec (-45%)	50.02 sec
TRANSMITTER TEST FOR 1 CH	1.42 sec (-56%)	0.78 sec (-75%)	3.20 sec
TRANSMIT & BER FOR FOR 1 CH	4.78 sec (-34%)	2.65 sec (-63%)	7.23 sec

* Based on the following parameters: BER/FER: DECT - 300 frames, CAT-iQ - 150 frames; Sample average: DECT - 4, CAT-iQ - 2; Channels: DECT - 1&5, CAT-iQ - 1&5.

DECT TEST

With the RTX2012 HS the test time is reduced substantially - even when only one channel is tested. The reduction is simply caused by the parallel measurement capability which drastically reduces the test time compared to the test time for other DECT testers.

CAT-IQ TEST

HD voice finds its way into more and more equipment. End users demand a high-functional-quality and with HD voice they get it. The technology behind HD voice is called CAT-iq. HD voice production test is even faster and more efficient than DECT. The HD voice test capability is an add-on to the RTX2012 HS tester.

The results show a drastic reduction when testing in CAT-iq mode, compared to testing in DECT mode. RTX strongly recommends testing CAT-iq enabled products in CAT-iq mode in order to reduce test time without compromising the test coverage. That reduction is obtained by longer slots with the double payload in the CAT-iq standard enabling the test to be performed on a half number of frames and still maintaining same measurement accuracy.