

R&S® CMW-IOT 2G/3G/HSPA IOT Test Plan for China Unicom Specifications



ROHDE & SCHWARZ

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The specifications in this document apply to the R&S®CMW500 with software release 2.1.27 and later.

Definitions

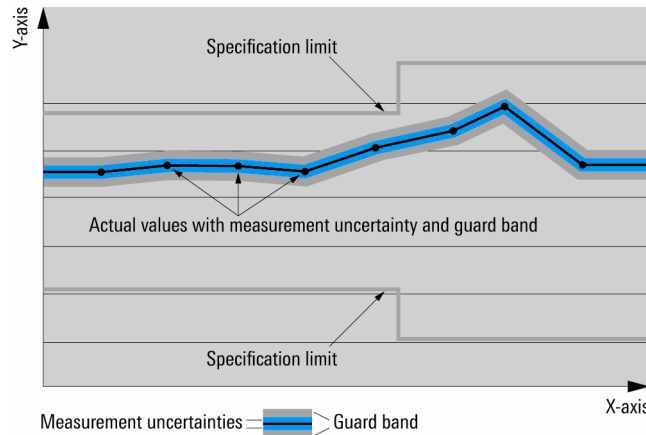
General

Product data applies under the following conditions:

- Three hours storage at ambient temperature followed by 30 minutes warm-up operation
- Specified environmental conditions met
- Recommended calibration interval adhered to
- All internal automatic adjustments performed, if applicable

Specifications with limits

Represent warranted product performance by means of a range of values for the specified parameter. These specifications are marked with limiting symbols such as $<$, \leq , $>$, \geq , \pm , or descriptions such as maximum, limit of, minimum. Compliance is ensured by testing or is derived from the design. Test limits are narrowed by guard bands to take into account measurement uncertainties, drift and aging, if applicable.



Specifications without limits

Represent warranted product performance for the specified parameter. These specifications are not specially marked and represent values with no or negligible deviations from the given value (e.g. dimensions or resolution of a setting parameter). Compliance is ensured by design.

Typical data (typ.)

Characterizes product performance by means of representative information for the given parameter. When marked with $<$, $>$ or as a range, it represents the performance met by approximately 80 % of the instruments at production time. Otherwise, it represents the mean value.

Nominal values (nom.)

Characterize product performance by means of a representative value for the given parameter (e.g. nominal impedance). In contrast to typical data, a statistical evaluation does not take place and the parameter is not tested during production.

Measured values (meas.)

Characterize expected product performance by means of measurement results gained from individual samples.

Uncertainties

Represent limits of measurement uncertainty for a given measurand. Uncertainty is defined with a coverage factor of 2 and has been calculated in line with the rules of the Guide to the Expression of Uncertainty in Measurement (GUM), taking into account environmental conditions, aging, wear and tear.

Device settings and GUI parameters are indicated as follows: "parameter: value".

Typical data as well as nominal and measured values are not warranted by Rohde & Schwarz.

China Unicom HSPA test plan

R&S® CMW-KO486

The China Unicom HSPA test plan is performed on an R&S® CMW500 protocol tester. As a minimum configuration, an R&S® CMW500 protocol tester GSM and WCDMA stack are required.

China Unicom test plan section	Test case	Comments
1.1.1	HSDPA, start and stop	
1.1.2	HSDPA, MO and MT voice call	
1.1.3	HSDPA, handover from HSDPA-capable cell to HSDPA-non-capable cell	
1.1.4	HSDPA, handover from HSDPA-non-capable cell to HSDPA-capable cell	
1.1.5	HSDPA, uplink radio bearer reconfiguration	
1.1.6	HSDPA, hard handover	
1.1.7	HSDPA, temporary loss of service	
1.1.8	HSDPA, active set update	
1.1.9	HSDPA, active set update failure	
1.1.10	HSDPA, serving cell change, soft handover	
1.1.11	HSDPA, serving cell change, hard handover	
1.1.12	HSDPA, transition from CELL_FACH to CELL_DCH	
1.1.13	HSDPA, transition from CELL_PCH to CELL_DCH	
1.1.14	HSDPA, transition from URA_PCH to CELL_DCH	
1.1.15	HSUPA, start and stop	
1.1.16	HSUPA, MO and MT voice call	
1.1.17	HSUPA, MO and MT SMS, CS domain	
1.1.18	HSUPA, handover from HSUPA-capable cell to HSUPA-non-capable cell	
1.1.19	HSUPA, handover from HSUPA-non-capable cell to HSUPA-capable cell	
1.1.20	HSUPA, uplink radio bearer reconfiguration	
1.1.21	HSUPA, hard handover	
1.1.22	HSUPA, temporary loss of service	
1.1.23	HSUPA, active set update	
1.1.24	HSUPA, active set update failure	
1.1.25	HSUPA, serving cell change, soft handover	
1.1.26	HSUPA, serving cell change, hard handover	
1.1.27	HSUPA, transition from CELL_FACH to CELL_DCH	
1.1.28	HSUPA, transition from CELL_PCH to CELL_DCH	
1.1.29	HSUPA, transition from URA_PCH to CELL_DCH	

R&S®CMW-KO482

The China Unicom AMR and call processing test plan is performed on an R&S®CMW500 protocol tester. As a minimum configuration, an R&S®CMW500 protocol tester GSM and WCDMA stack are required.

China Unicom test plan section	Test case	Comments
1.1.1	MO voice call, MO voice call release Conversational/speech/UL: 4.75 kbps DL: 4.75 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.2	MT voice call, MO voice call release Conversational/speech/UL: 5.15 kbps DL: 5.15 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.3	MO voice call, MT voice call release Conversational/speech/UL: 5.9 kbps DL: 5.9 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.4	MT voice call, MT voice call release Conversational/speech/UL: 6.7 kbps DL: 6.7 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.5	MO voice call, MO voice call release Conversational/speech/UL: 7.4 kbps DL: 7.4 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.6	MT voice call, MO voice call release Conversational/speech/UL: 7.95 kbps DL: 7.95 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.7	MO voice call, MT voice call release Conversational/speech/UL: 10.2 kbps DL: 10.2 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.8	MT voice call, MT voice call release Conversational/speech/UL: 12.2 kbps DL: 12.2 kbps/CS RAB + UL: 3.4 kbps DL: 3.4 kbps SRBs for DCCH	
1.1.9	MO voice call, UE in CELL_DCH state, MO voice call release	
1.1.10	MT voice call, UE in CELL_DCH state, MT voice call release	
1.1.11	MO voice call, UE in CELL_FACH state, MO voice call release	
1.1.12	MT voice call, UE in CELL_FACH state, MT voice call release	
1.1.13	MO voice call, UE in CELL_PCH state, MO voice call release	
1.1.14	MT voice call, UE in CELL_PCH state, MT voice call release	
1.1.15	MO voice call, UE in URA_PCH state, MO voice call release	
1.1.16	MT voice call, UE in URA_PCH state, MT voice call release	
1.1.17	MO voice call, call reject with cause #17 (user busy)	
1.1.18	MO voice call, call reject with cause #19 (user alerting, no answer)	
1.1.19	MO voice call, reject with cause #21 (call rejected)	
1.1.20	DTMF, MT voice call	
1.1.21	DTMF, MO voice call	
1.1.22	MO international call	

Ordering information

Designation	Type	Order No.
Hardware		
Wideband Radio Communication Tester, with options	R&S®CMW500	1201.0002K50
China Unicom software options on the R&S®CMW500		
Software License for HSPA	R&S®CMW-KO486	1513.7274.02
Software License for AMR and Call Processing	R&S®CMW-KO482	1513.7268.02

Service options		
Extended Warranty, one year	R&S®WE1CMW500	Please contact your local Rohde & Schwarz sales office.
Extended Warranty, two years	R&S®WE2CMW500	
Extended Warranty, three years	R&S®WE3CMW500	
Extended Warranty, four years	R&S®WE4CMW500	
Extended Warranty with Calibration Coverage, one year	R&S®CW1CMW500	
Extended Warranty with Calibration Coverage, two years	R&S®CW2CMW500	
Extended Warranty with Calibration Coverage, three years	R&S®CW3CMW500	
Extended Warranty with Calibration Coverage, four years	R&S®CW4CMW500	

Extended warranty with a term of one to four years (WE1 to WE4)

Repairs carried out during the contract term are free of charge ¹. Necessary calibration and adjustments carried out during repairs are also covered. Simply contact the forwarding agent we name; your product will be picked up free of charge and returned to you in top condition a couple of days later.

Extended warranty with calibration (CW1 to CW4)

Enhance your extended warranty by adding calibration coverage at a package price. This package ensures that your Rohde & Schwarz product is regularly calibrated, inspected and maintained during the term of the contract. It includes all repairs ¹ and calibration at the recommended intervals as well as any calibration carried out during repairs or option upgrades.

For product brochure, see PD 5214.2833.12 and www.rohde-schwarz.com

¹ Excluding defects caused by incorrect operation or handling and force majeure. Wear-and-tear parts are not included.

Service you can rely on

- ▮ Worldwide
- ▮ Local and personalized
- ▮ Customized and flexible
- ▮ Uncompromising quality
- ▮ Long-term dependability

About Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radiomonitoring and radiolocation, as well as secure communications. Established more than 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. Company headquarters are in Munich, Germany.

Environmental commitment

- ▮ Energy-efficient products
- ▮ Continuous improvement in environmental sustainability
- ▮ ISO 14001-certified environmental management system

Certified Quality System
ISO 9001

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