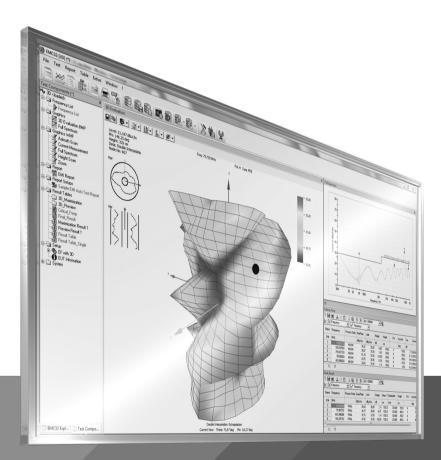
# R&S®EMC32 EMC MEASUREMENT SOFTWARE

## **Specifications**





Data Sheet Version 13.00

## ROHDE&SCHWARZ

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### Software version

The following specifications are valid for software version 10.60.10

### User interface languages

The following user interface languages are supported in R&S<sup>®</sup>EMC32 version 10.60.10: English, German, French, Spanish, Chinese, Russian, Japanese

### System requirements <sup>1</sup>

Operating system	Windows 10 (64 bit),	
	Windows 7 (32/64 bit)	
CPU	Intel Core models or compatible models with a core speed > 2.4 GHz	
Free RAM	≥ 4 Gbyte	
Free hard disk space	≥ 1 Gbyte, usage of SSD recommended	
Graphics resolution	≥ 1280 x 1024 pixel, 65536 colors (higher resolution strongly recommended)	
Network	100 Mbit LAN interface	
National Instrument VISA I/O Library	Version 17.0 or later,	
	optional NI GPIB interface cards: NI only, compatible GPIB cards from other	
	manufactures are not supported	
Open source acknowledgement	The R&S <sup>®</sup> EMC32 measurement software contains open source software packages.	
	Copies of the respective licenses are included in the R&S <sup>®</sup> EMC32 measurement	
	software open source acknowledgement. Please refer to the download area at	
	www.emc32.rohde-schwarz.com	

### Base software packages

#### R&S<sup>®</sup>EMC32-EB, R&S<sup>®</sup>EMC32-MEB EMI measurement software for conducted and radiated emissions

Standards	examples	CISPR
		EN
		ETSI
		FCC
		VCCI
		VDE
		MIL-STD-461
		DEF-STAN
Key features	<ul> <li>measurement of disturbance voltage, disstrength</li> <li>use in product certification and precomp</li> <li>in line with commercial, automotive and</li> <li>flexible adaptation to requirements of va</li> <li>libraries of limit lines for various internat factors (antenna transducers, probes, LI</li> <li>integrated calibration concept</li> <li>flexible report generator (HTML, RTF, P</li> <li>EUT-specific or application-specific test</li> <li>software operates as a virtual instrument</li> </ul>	liance testing during development military standards irious EMC applications ional product standards and correction SNs, etc.) DF) storage and data management

<sup>&</sup>lt;sup>1</sup> If your PC does not meet these requirements, the performance of the software may be impaired.

upported devices <sup>2</sup>	test receivers	R&S <sup>®</sup> ESW
		R&S <sup>®</sup> ESU
		R&S <sup>®</sup> ESR
		R&S <sup>®</sup> ESRP
		R&S <sup>®</sup> ESCI
		R&S <sup>®</sup> ESPI
		R&S <sup>®</sup> ESL
		R&S <sup>®</sup> ESIB
		R&S <sup>®</sup> ESCS
		R&S <sup>®</sup> ESS
		R&S <sup>®</sup> ESPC
		R&S <sup>®</sup> ESHS/R&S <sup>®</sup> ESVS
		R&S <sup>®</sup> ESAI/R&S <sup>®</sup> ESBI/R&S <sup>®</sup> ESMI
		R&S <sup>®</sup> FSWT
		R&S <sup>®</sup> FSET
		R&S <sup>®</sup> ESN/R&S <sup>®</sup> ESVN
	spectrum analyzers	R&S <sup>®</sup> FSW
		R&S <sup>®</sup> FSV
		R&S <sup>®</sup> FSU
		R&S <sup>®</sup> FSP
		R&S <sup>®</sup> FSL
		R&S <sup>®</sup> FS300 (only 32 bit Windows)
		R&S <sup>®</sup> FSEA/R&S <sup>®</sup> FSEB/R&S <sup>®</sup> FSEM/
	optoppe reside and transfeller	R&S <sup>®</sup> FSEK
	antenna masts and turntables	generic tripod
		Deisel HD100
		Innco CO2000
		Innco CO3000 incl. tilt with TPMP
		EMCO/ETS 2090
		ETS EMCENTER
		Frankonia FCTAM01/04/05
		Schaefer HCM/HCT
		SUNOL
		Maturo controller NCD, MCU, FCU
		generic mast/turntable
		Orbit/FR turntable
		R&S <sup>®</sup> DST200 positioner
	slide bars	Deisel / Maturo MCU, FCU
		Innco
		Schaefer HCA/RSA
	switch units	
	Switch Units	R&S <sup>®</sup> OSP
		R&S <sup>®</sup> TS-RSP
		R&S®SCIU
		R&S <sup>®</sup> RSU
		R&S®BBA100
		Teseo OAM01/OAM02
		Bonn RSU
		ADAM 6060
		generic switch unit
	signal generators	R&S <sup>®</sup> AM300 (only 32 bit Windows)
	signal generators	
	signal generators	R&S <sup>®</sup> SMG/H/Y
	signal generators	R&S <sup>®</sup> SMG/H/Y R&S <sup>®</sup> SMF
	signal generators	R&S <sup>®</sup> SME
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR R&S <sup>®</sup> SMA100A/B
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR R&S <sup>®</sup> SMA100A/B R&S <sup>®</sup> SMB100A/B
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR R&S <sup>®</sup> SMA100A/B R&S <sup>®</sup> SMB100A/B R&S <sup>®</sup> SMC100A
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR R&S <sup>®</sup> SMA100A/B R&S <sup>®</sup> SMB100A/B R&S <sup>®</sup> SMC100A R&S <sup>®</sup> SMBV100A
	signal generators	R&S®SME R&S®SMT/R&S®SMP R&S®SML/R&S®SMV R&S®SMR R&S®SMA100A/B R&S®SMB100A/B R&S®SMC100A R&S®SMBV100A R&S®SMBV100A R&S®SMU200A
	signal generators	R&S <sup>®</sup> SME R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV R&S <sup>®</sup> SMR R&S <sup>®</sup> SMA100A/B R&S <sup>®</sup> SMB100A/B R&S <sup>®</sup> SMC100A R&S <sup>®</sup> SMBV100A
	signal generators	R&S®SME R&S®SMT/R&S®SMP R&S®SML/R&S®SMV R&S®SMR R&S®SMA100A/B R&S®SMB100A/B R&S®SMC100A R&S®SMBV100A R&S®SMBV100A R&S®SMU200A

<sup>&</sup>lt;sup>2</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

#### R&S<sup>®</sup>EMC32-S, R&S<sup>®</sup>EMC32MS EMS measurement software for conducted and radiated susceptibility

Standards	examples	IEC/EN 61000-4-3
		IEC/EN 61000-4-6
		IEC/EN 61000-4-20
		CISPR 24/EN 55024
		EN 60601-1-2
		EN 60601-2-x
Key features	measurement of radiated and	conducted susceptibility
	<ul> <li>use in product certification and</li> </ul>	
	<ul> <li>in line with commercial, autom</li> </ul>	
		nents of various EMC applications
	<ul> <li>fully automatic control of EMS</li> </ul>	
	<ul> <li>integrated calibration concept</li> </ul>	
	<ul> <li>various capabilities for EUT m</li> </ul>	
	<ul> <li>interface to external EUT mor</li> </ul>	
	<ul> <li>flexible report generator (HTM)</li> </ul>	IL, RTF, PDF)
		pecific test storage and data management
	<ul> <li>software operates as a virtual</li> </ul>	
Supported devices <sup>3</sup>	signal generators	R&S <sup>®</sup> AM300 (only 32 bit Windows)
		R&S <sup>®</sup> SMG/R&S <sup>®</sup> SMH/R&S <sup>®</sup> SMY
		R&S <sup>®</sup> SME
		R&S <sup>®</sup> SMT/R&S <sup>®</sup> SMP
		R&S <sup>®</sup> SML/R&S <sup>®</sup> SMV
		R&S <sup>®</sup> SMR
		R&S <sup>®</sup> SMA100A/B
		R&S <sup>®</sup> SMB100A/B
		R&S <sup>®</sup> SMB100B
		R&S <sup>®</sup> SMC100A
		R&S <sup>®</sup> SMBV100A
		R&S <sup>®</sup> SMU200A
		R&S <sup>®</sup> SMJ100A
		R&S <sup>®</sup> SMF100A
		R&S <sup>®</sup> SM300 (only 32 bit Windows)
		R&S®HMF2525
		HM8134
		HM8135
	nower meters	R&S <sup>®</sup> NRP2
	power meters	R&S®NRQ6
		R&S®NRP
		R&S®NRP-Zxx
		R&S <sup>®</sup> NRPxx-S(N)
		R&S <sup>®</sup> NRVD
		R&S®NRVS
		R&S®NRX
		R&S®URV5/R&S®NRV/R&S®URY
		R&S <sup>®</sup> URE3/R&S <sup>®</sup> URE2/R&S <sup>®</sup> URE
		Gigatronics 8650
		Agilent E4417/4412A/4413A
		HP8508
	test receivers	R&S <sup>®</sup> ESW
		R&S <sup>®</sup> ESU
		R&S <sup>®</sup> ESR
		R&S <sup>®</sup> ESRP

<sup>&</sup>lt;sup>3</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

Supported devices

	R&S®ESCI
	R&S <sup>®</sup> ESPI
	R&S <sup>®</sup> ESL
	R&S <sup>®</sup> ESIB
	R&S <sup>®</sup> ESCS
	R&S <sup>®</sup> ESS
	R&S <sup>®</sup> ESPC
	R&S <sup>®</sup> ESHS/R&S <sup>®</sup> ESVS
	R&S <sup>®</sup> ESAI/R&S <sup>®</sup> ESBI/R&S <sup>®</sup> ESMI
	R&S <sup>®</sup> ES(V)N
	R&S <sup>®</sup> FSWT
	R&S <sup>®</sup> FSET
spectrum analyzers	R&S <sup>®</sup> FSW
	R&S <sup>®</sup> FSV
	R&S <sup>®</sup> FSU
	R&S <sup>®</sup> FSP
	R&S <sup>®</sup> FSL
	R&S <sup>®</sup> FS300 (only 32 bit Windows)
	R&S <sup>®</sup> FSEA/R&S <sup>®</sup> FSEB/R&S <sup>®</sup> FSEM/
	R&S®FSEK
amplifiers	R&S®BBA100
ampiners	R&S <sup>®</sup> BBA130
	R&S <sup>®</sup> BBA150
	R&S*BBA150 R&S®BBL200
	Bonn BLWA
	Bonn BLMA
	Bonn BTA
	Bonn BSA
	AR (SCIU controlled)
	AR (TSRSP controlled)
	AR TxGx
	generic amplifier
switch units	R&S®OSP
	R&S®TS-RSP
	R&S <sup>®</sup> SCIU
	R&S <sup>®</sup> RSU
	R&S <sup>®</sup> BBA100
	Teseo OAM01/OAM02
	Bonn RSU
	ADAM 6060
	generic switch unit
field sensors	AR IF7000
	ETS HI6100
	Holaday IF4000
	AR FA72xx
	AR FM2000
	AR FM2000 AR FM5004
	AR FM7004
	AR FI7000

Supported devices <sup>4</sup>	field sensors	AR IF4000
		ETS HI6xxx
		AR IF-4456
		Narda EMR-200
		Narda EMC-300
		Narda NBM 520/550/580
		PMM EP6xx
		PMM EHP-200
		PMM OR03
		PMM 8053
		Wandel & Goltermann WG20
		Dare RadiSense/RadiCentre
		IFI EFS-6
		Wavecontrol SMP2
		Generic field probe (e.g. Lumiloop
		LSPROBE 1.2)
	EUT monitoring	generic monitoring
		CE-SYS CECAM
		external PC monitoring
		mk-messtechnik video inserter
		Voelker SVG video inserter
		National Instruments USB 6009
		meM-ADfo
		USB-AD16f
		memM-PIO USB I/O
		R&S®RTO
		R&S <sup>®</sup> RTM
		R&S <sup>®</sup> RTE
		R&S <sup>®</sup> UPL
		R&S <sup>®</sup> UPV
		R&S®UPP200/R&S®UPP400/
		R&S <sup>®</sup> UPP800
	antenna masts and turntables	
		generic tripod Deisel HD100
		Innco CO2000/CO3000 incl. Tilt with
		TMPM
		Dare Radicenter
		EMCO 2090
		ETS 2090 ETS EMCenter
		Frankonia FCTAM01/04/05
		Schaefer HCM/HCT
		SUNOL
		Maturo Controller MCU, NCD, FCU
		generic mast/turntable
		Orbit/FR turntable
		R&S <sup>®</sup> DST200 positioner
	interlock devices	R&S <sup>®</sup> TS-RSP
		R&S <sup>®</sup> SCIU
		Bonn Amplifier
		meM-PIO USB-I/O
		R&S®OSP
		R&S®BBA100
		R&S <sup>®</sup> BBA150

<sup>&</sup>lt;sup>4</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

## Options

#### R&S<sup>®</sup>EMC32-K1, R&S<sup>®</sup>EMC32MK1 EMS measurements in line with automotive and military standards

Required R&S <sup>®</sup> EMC licenses		R&S <sup>®</sup> EMC32-S
Standard	examples	ISO 11451
		ISO 11452
		MIL-STD-461E/F, CS114
		MIL-STD-461E/F, RS103
		RTCA DO 160 G
		SAE J1113
		SAE J551
		2004/104 EC
		ECE 10 revision 3
		car manufacturer standards
	<ul> <li>monitoring of automotive bus system</li> <li>automatic determination of immunity</li> <li>direct power injection measurements</li> <li>TEM cell attenuation measurement</li> </ul>	thresholds
Supported devices <sup>5</sup>	arbitrary generators	R&S <sup>®</sup> AM300 (only 32 bit Windows)
		R&S <sup>®</sup> SMA100A pulse train option
		R&S <sup>®</sup> SMB100A pulse train option
		R&S <sup>®</sup> SMF100A pulse train option
		R&S <sup>®</sup> HMF2525, R&S <sup>®</sup> HMF2550
		Agilent 33220A/33250A
		Tektronix AFG320
	EUT monitoring via R&S EMCAN32	Vector CANoe (V11)
		Vector CANalyzer (V11)

#### R&S<sup>®</sup>EMC32-K2, R&S<sup>®</sup>EMC32MK2 RSE and ABT measurements on wireless devices

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB
Standard	examples	ETSI EN 301489-x
		ETSI EN 300607
Key features	radiated spurious emission (RS     oudia broakthrough (ABT) mag	,
	<ul> <li>audio breakthrough (ABT) mea</li> <li>support of filter banks</li> </ul>	surements
	<ul> <li>support of all major wireless tee</li> </ul>	chnologies
Supported devices <sup>5</sup>		R&S <sup>®</sup> CMW500
		R&S <sup>®</sup> OSP-Fxxx
		R&S <sup>®</sup> CMU200 <sup>6</sup>
		R&S <sup>®</sup> CBT32 <sup>6</sup>
		R&S <sup>®</sup> PTW70 <sup>6</sup>

<sup>6</sup> Discontinued product.

<sup>&</sup>lt;sup>5</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

#### R&S<sup>®</sup>EMC32-K3, R&S<sup>®</sup>EMC32MK3 EMS measurements in reverberation chambers (mode-tuned method)

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S, R&S <sup>®</sup> EMC32-K4
Standard	examples	IEC/EN 61000-4-21
		Ford ES-XW7T-1A278-AC
		GMW3097
		RTCA DO160
		MIL-STD-461E/F
Key features	<ul> <li>calibration of reverberatio</li> </ul>	n chamber (loaded and unloaded)
	EUT check	
	EUT test	
Supported devices 7		tuner devices and turntable drivers (see R&S <sup>®</sup> EMC32-EB/R&S <sup>®</sup> EMC32-S)

#### R&S<sup>®</sup>EMC32-K4, R&S<sup>®</sup>EMC32MK4 EMS auto test

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S	
Key features	<ul> <li>sequential EUT tests with several</li> <li>several modulation modes</li> <li>several turntable positions</li> <li>several antenna polarizations</li> </ul>	several turntable positions	
Supported devices <sup>7</sup>	field probe positioning devices	TDK PP02	
		TDK SI200	
		Innco FSM2315	
		Innco FSM916	
		Beckmann Probotic	
		Maturo FPP	

#### R&S<sup>®</sup>EMC32-K6, R&S<sup>®</sup>EMC32MK6 EMS measurements (CS103, CS104, CS105)

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S, R&S <sup>®</sup> EMC32-K1
Standards		MIL-STD-461E/F, CS103, CS104, CS105
Key features	receiver sensitivity measurements	

#### R&S<sup>®</sup>EMC32-K7, R&S<sup>®</sup>EMC32MK7 generic device drivers

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB	
Key features	support of third-party instruments	support of third-party instruments	
Supported devices 7	signal generators	generic generator	
	power meters	generic power meter	
	oscilloscopes (for EUT monitoring)	generic oscilloscope	
	spectrum analyzers	generic analyzer	
	test receivers	generic receiver	

#### R&S<sup>®</sup>EMC32-K8, R&S<sup>®</sup>EMC32MK8 interface to lab management systems

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB
Key features	<ul> <li>interface to dacore LabMan RS lab management software</li> </ul>	
	<ul> <li>interface to other products on request</li> </ul>	
Supported devices 7		dacore LabMan RS

<sup>&</sup>lt;sup>7</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

#### R&S<sup>®</sup>EMC32-K10, R&S<sup>®</sup>EMC32MK10 EMI autotest

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB	
Key features		stop/continue autotest flow	
Supported devices <sup>8</sup>	spectrum analyzers test receivers	generic analyzer generic receiver	

#### R&S<sup>®</sup>EMC32-K10A EMI autotest extension for spurious measurements

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-EB and EMC32-K10	
Key features	<ul> <li>extension to perform the spurious measurements in line with EN 300328,</li> </ul>	
	EN 301893 and EN 302502	

## R&S<sup>®</sup>EMC32-K11, R&S<sup>®</sup>EMC32MK11 test sequencer

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB	
Key features	<ul> <li>sequential test runs for both EMI and EMS measurements</li> </ul>	
	<ul> <li>test plan for different categories</li> </ul>	
	<ul> <li>individual and comprehensive reports in line with customer requirements</li> </ul>	

## R&S<sup>®</sup>EMC32-K21, R&S<sup>®</sup>EMC32MK21 application interface

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB
Key features	<ul> <li>automation of additional measurements</li> <li>intuitive macro language for test sequend</li> <li>mathematical operations</li> <li>call of subprograms; access to remote</li> <li>use as standalone test, action or EUT measurements</li> </ul>	ce control with e interface (GPIB, LAN)

## R&S<sup>®</sup>EMC32-K22, R&S<sup>®</sup>EMC32MK22 azimuth chart

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-EB
Key features	<ul> <li>measurement of radiation pattern (2D)</li> </ul>
	<ul> <li>display as polar diagram (azimuth chart)</li> </ul>
	passive antenna measurement

#### R&S<sup>®</sup>EMC32-K23, R&S<sup>®</sup>EMC32MK23 3D result evaluation

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K10	
Key features	• evaluation of preview and/or maximization results of radiated OATS measurements	
	3D chart (cylindrical coordinate characterization) for a specific frequency	
	<ul> <li>easy chart generation using drag &amp; drop</li> </ul>	
	interactive rotation of chart	
	<ul> <li>smooth scaling, zooming and interpolation</li> </ul>	
	<ul> <li>display of horizontal and vertical cuts</li> </ul>	

<sup>&</sup>lt;sup>8</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

## R&S<sup>®</sup>EMC32-K24, R&S<sup>®</sup>EMC32MK24 interactive EMI auto test

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K10	
Key features	interactive verification of critical frequencies and final measurement results	
	<ul> <li>repetition of auto test measurement steps for selected frequencies</li> </ul>	

#### R&S<sup>®</sup>EMC32-K251, R&S<sup>®</sup>EMC32MK251 RSE and ABT measurements on TD-SCDMA devices

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K2, R&S <sup>®</sup> EMC32-K10
Standard	examples	ETSI EN 301489
		ETSI EN 300607
Key features	measurement on TD-SCDMA devices	
Supported devices <sup>9</sup>		R&S <sup>®</sup> CMW500

#### R&S<sup>®</sup>EMC32-K26, R&S<sup>®</sup>EMC32MK26 RSE and ABT measurements on LTE devices

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K2, R&S <sup>®</sup> EMC32-K10
Standard	examples	ETSI EN 301489
		ETSI EN 300607
Key features	measurement on LTE devices	
Supported devices 9		R&S <sup>®</sup> CMW500
		R&S <sup>®</sup> OSP with R&S <sup>®</sup> OSP-B155

#### R&S<sup>®</sup>EMC32-K27, R&S<sup>®</sup>EMC32MK27 dual receiver measurement

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K10
Standards		all commercial EMI standards
Key features	<ul> <li>support of two receivers simultaneously e.g. one horizontal, the other vertical</li> <li>reduced measurement time</li> <li>versatile measurement modes</li> <li>automatic antenna angle offset</li> <li>separate receivers for antennas</li> <li>sweep data from two receivers saved separately and merged before data reduction</li> </ul>	
Supported devices <sup>9</sup>	Two receivers of the same product line required. Examples: R&S®ESW8 and R&S®ESW44 or R&S®FSV4 and R&S®FSV40	refer to R&S <sup>®</sup> EMC32-EB

<sup>&</sup>lt;sup>9</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

#### R&S<sup>®</sup>EMC32-K33, R&S<sup>®</sup>EMC32MK33 EMI measurements in reverberation chambers (mode-tuned method)

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB and R&S <sup>®</sup> EMC32-K10
Standard	examples	EN 61000-4-21 annex E
Key features	<ul> <li>calculation and display of the strength</li> <li>optional data reduction to not strength</li> </ul>	different tuner steps in defined frequency subranges he DUT's radiated power and estimated free-space field mark critical frequencies compared to limit line data and DUT check data from R&S <sup>®</sup> EMC32-K3
Supported devices <sup>10</sup>		tuner devices and turntable drivers (see R&S <sup>®</sup> EMC32-EB/R&S <sup>®</sup> EMC32-S)

#### R&S<sup>®</sup>EMC32-K35, R&S<sup>®</sup>EMC32MK35 EMS measurements on multimedia receivers

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-S and R&S <sup>®</sup> EMC32-K35 <sup>11</sup>
Standard	CISPR 35
Key features	<ul> <li>control of broadcast generators</li> <li>automatic adaptation of immunity shape taking into account tuner frequency range, tuned channel and spot tests</li> <li>sound reference measurement</li> </ul>
Supported devices <sup>10</sup>	R&S®BTC R&S®SFE/R&S®SFE100, R&S®SFU, R&S®VTC, R&S®VTE, R&S®VTS, R&S®DVSG

#### R&S<sup>®</sup>EMC32-K37, R&S<sup>®</sup>EMC32MK37 EMS autotest: extension for sequences of multimedia tests

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-S, R&S <sup>®</sup> EMC32-K4, R&S <sup>®</sup> EMC32-K35
Key features	<ul> <li>extension to perform sequences of multimedia tests on broadcast receivers in line with CISPR 35 (R&amp;S®EMC32-K35)</li> <li>sequential EUT tests with several parameters (loops)         <ul> <li>multimedia test type (audio or display),</li> <li>multimedia broadcast channel (as supported by the selected broadcast generator instrument)</li> <li>multimedia test port (as defined in the selected EUT Information file)</li> </ul> </li> </ul>

## R&S<sup>®</sup>EMC32-K48, R&S<sup>®</sup>EMC32MK48 shielding effectiveness test

Required R&S <sup>®</sup> EMC licenses		R&S <sup>®</sup> EMC32-S, R&S <sup>®</sup> EMC32-K4
Standard	examples	IEEE 299
		MIL-STD-285
		MIL-STD-188-125-1
		BS EN 50147-1
		ASTM D4935-10
		IEC 62153-4-6
		other standards similar to the above
Key features	<ul> <li>automatic settings for optimized dynamic range</li> </ul>	
	<ul> <li>automatic settings for signal generation</li> </ul>	
	<ul> <li>control switching of signal generators and antennas</li> </ul>	
	<ul> <li>display of real time shielding effectiveness test results</li> </ul>	
	<ul> <li>automatic report generation</li> </ul>	

<sup>&</sup>lt;sup>10</sup> Please check the R&S<sup>®</sup>EMC32 installation CD for the operating system and the required firmware versions of the test instruments. Support of other devices on request.

<sup>&</sup>lt;sup>11</sup> Some EMI measurements in line with CISPR 32 using R&S<sup>®</sup>EMC32-EB are also supported.

#### R&S<sup>®</sup>EMC32-K51, R&S<sup>®</sup>EMC32MK51 EMI band evaluation

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB
Standard	examples	Ford ES-XW7T-1A278-AC
		GMW 3091
		GMW 3097
Key features	on-board EMI measurement sequence in broadband and communications frequency	
	bands for automotive and aerospace applications	

#### R&S<sup>®</sup>EMC32-K52, R&S<sup>®</sup>EMC32MK52 Limit line based measurement sequence

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K51	
Standard	various automotive manufacturers'	
	standard	
Key features	evaluation of measurement result against several, overlapping limit lines	
	reference lines for comparison of measurement results to previous measurements	
	or reference measurements	

#### R&S<sup>®</sup>EMC32-K56, R&S<sup>®</sup>EMC32MK56 EMI measurements on transmitters (in transmit mode)

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-K10
Standard	examples	MIL-STD-461E/F/G, CE106
		MIL-STD-461E/F/G, RE103
Key features	<ul> <li>preview measurement with determination automatically or via operator input</li> <li>calculation and display of required limit li on harmonics number</li> <li>optional data reduction to mark critical free</li> </ul>	ine with increased margin level depending

#### R&S<sup>®</sup>EMC32-K61 device driver for compact conducted susceptibility tester

R&S <sup>®</sup> EMC32-S, R&S <sup>®</sup> EMC32-K1 for	
automotive testing	
<ul> <li>support for controlling internal RF generator, power meter, amplifier and switching unit</li> </ul>	
<ul> <li>support for measurements in line with EN 61000-4-6 (R&amp;S<sup>®</sup>EMC32-S)</li> </ul>	
<ul> <li>support for measurement in line with ISO 11452-4 (BCI) (requires R&amp;S<sup>®</sup>EMC32-K1)</li> </ul>	
emtest CWS500N2 (firmware 3.22a03) via USB or GPIB	

#### R&S<sup>®</sup>EMC32-K84, R&S<sup>®</sup>EMC32MK84 report interface to word processing apps

Required R&S <sup>®</sup> EMC32 licenses	R&S <sup>®</sup> EMC32-S and/or R&S <sup>®</sup> EMC32-EB
Key features	<ul> <li>summary test report over a test session for a single EUT         <ul> <li>report based on Word .dotx files referencing R&amp;S®EMC32 report components via field text commands</li> <li>main report section with test summary table</li> <li>sub reports based on application specific sub report templates .dotx</li> <li>easy selection of tests to be included in the summary report</li> <li>single test report extension to output report as a Word .docx file</li> </ul> </li> </ul>

#### R&S<sup>®</sup>EMC32-K974 remote control interface for R&S<sup>®</sup>EMC32, R&S<sup>®</sup>AMS32 and R&S<sup>®</sup>WMS32

Required R&S <sup>®</sup> EMC32 licenses		R&S <sup>®</sup> EMC32-EB and/or R&S <sup>®</sup> EMC32-S
Key features	<ul> <li>load test</li> </ul>	
	<ul> <li>start test</li> </ul>	
	<ul> <li>stop test</li> </ul>	
	<ul> <li>pause test</li> </ul>	
	save test	

### Software upgrade options

## R&S<sup>®</sup>EMC32-U9E option for upgrade of emission base software to version 9.xx and 10.0

1 10		
Key features	•	upgrade from R&S <sup>®</sup> EMC32-EB/R&S <sup>®</sup> EMC32-E/
		R&S <sup>®</sup> EMC32-E+ version 8.xx or lower to version 9.xx and 10.0
	•	R&S <sup>®</sup> EMC32-U9E is shipped as a key code

#### R&S®EMC32-U9S

#### option for upgrade of susceptibility base software to version 9.xx and 10.0

1 15		
Key features	<ul> <li>upgrade from R&amp;S<sup>®</sup>EMC32-S version 8.xx or lower to</li> </ul>	
	version 9.xx and 10.0	
	<ul> <li>R&amp;S<sup>®</sup>EMC32-U9S is shipped as a key code</li> </ul>	

#### R&S<sup>®</sup>EMC32-UP9 option for upgrade of emission and susceptibility base software to version 9.xx and 10.0

Key features	<ul> <li>upgrade from R&amp;S<sup>®</sup>EMC32-A/R&amp;S<sup>®</sup>EMC32-A+/R&amp;S<sup>®</sup>EMC32-C/R&amp;S<sup>®</sup>EMC32-W+</li> </ul>
	version 8.xx or lower to version 9.xx and 10.0

#### R&S<sup>®</sup>EMC32-K90 1 year EMI software upgrade service (software maintenance)

Prerequisites	<ul> <li>R&amp;S<sup>®</sup>EMC32-EB, R&amp;S<sup>®</sup>EMC32MEB (or legacy EMI base license) with upgrade to version 9 and 10 (R&amp;S<sup>®</sup>EMC32-U9E)</li> </ul>
Key features	<ul> <li>allows users to run version 11 and future software versions with their R&amp;S<sup>®</sup>EMC32-EB (and legacy EMI licenses), when version 11 and the future software version is released during the validity period of the R&amp;S<sup>®</sup>EMC32-K90</li> <li>software options (Kxx) are automatically covered with R&amp;S<sup>®</sup>EMC32-K90</li> <li>R&amp;S<sup>®</sup>EMC32-K90 is shipped as a key code</li> </ul>

#### R&S<sup>®</sup>EMC32-K91 1 year EMS software upgrade service (software maintenance)

Prerequisites	<ul> <li>R&amp;S<sup>®</sup>EMC32-S, R&amp;S<sup>®</sup>EMC32-MS with upgrade to version 9 and 10 (R&amp;S<sup>®</sup>EMC32-U9S)</li> </ul>
Key features	<ul> <li>allows users to run version 11 and future software versions with their R&amp;S<sup>®</sup>EMC32-S, when version 11 and the future software version is released during the validity period of the R&amp;S<sup>®</sup>EMC32-K91</li> <li>software options (Kxx) are automatically covered with R&amp;S<sup>®</sup>EMC32-K91</li> <li>R&amp;S<sup>®</sup>EMC32-K91 is shipped as a key code</li> </ul>

### **Ordering information**

Designation	Туре	Order No.
Base software		
EMI measurement software, for conducted and radiated emissions	R&S <sup>®</sup> EMC32-EB	1300.7010.02
EMS measurement software, for conducted and radiated susceptibility	R&S <sup>®</sup> EMC32-S	1119.4638.02
Options		÷
EMS measurements in line with automotive and military standards	R&S <sup>®</sup> EMC32-K1	1147.5493.02
RSE and ABT measurements on wireless devices	R&S <sup>®</sup> EMC32-K2	1147.5506.02
EMS measurements in reverberation chambers (mode-tuned method)	R&S <sup>®</sup> EMC32-K3	1147.5512.02
EMS auto test	R&S <sup>®</sup> EMC32-K4	1147.5529.02
EMS measurements (CS103, CS104, CS105)	R&S <sup>®</sup> EMC32-K6	1147.5541.02
Generic device drivers	R&S <sup>®</sup> EMC32-K7	1144.5134.02
Interface to lab management systems	R&S <sup>®</sup> EMC32-K8	1117.7652.02
EMI auto test	R&S <sup>®</sup> EMC32-K10	1117.6840.02
EMI auto test extension for spurious measurements	R&S <sup>®</sup> EMC32-K10A	1527.1050.02
Test sequencer	R&S <sup>®</sup> EMC32-K11	1117.6862.02
Application interface	R&S <sup>®</sup> EMC32-K21	1117.7630.02
Azimuth chart	R&S <sup>®</sup> EMC32-K22	1117.7646.02
3D Result evaluation	R&S <sup>®</sup> EMC32-K23	1504.9190.02
Interactive EMI auto test	R&S <sup>®</sup> EMC32-K24	1518.3202.02
RSE and ABT measurements on TD-SCDMA devices	R&S <sup>®</sup> EMC32-K251	1520.5250.02
RSE and ABT measurements on LTE devices	R&S <sup>®</sup> EMC32-K26	1518.1739.02
Dual receiver measurement	R&S <sup>®</sup> EMC32-K27	5601.0324.02
EMI measurements in reverberation chambers (mode-tuned method)	R&S <sup>®</sup> EMC32-K33	1515.2663.02
EMS measurements on multimedia receivers	R&S <sup>®</sup> EMC32-K35	1519.6270.02
EMS auto test, extension for sequences of multimedia tests	R&S <sup>®</sup> EMC32-K37	1519.6292.02
Shielding effectiveness test	R&S <sup>®</sup> EMC32-K48	5601.0301.02
EMI band evaluation	R&S <sup>®</sup> EMC32-K51	1504.9026.02
Limit line based measurement sequence	R&S <sup>®</sup> EMC32-K52	1531.5186.02
EMI measurements on transmitters (in transmit mode)	R&S <sup>®</sup> EMC32-K56	1504.9226.02
Device driver for compact conducted susceptibility tester	R&S <sup>®</sup> EMC32-K61	1529.7879.02
Report interface to word processing apps	R&S <sup>®</sup> EMC32-K84	1522.9076.02
Remote control interface for R&S <sup>®</sup> EMC32, R&S <sup>®</sup> AMS32 and R&S <sup>®</sup> WMS32	R&S <sup>®</sup> EMC32-K974	1520.9879.02
Upgrade of R&S <sup>®</sup> EMC32-EB, R&S <sup>®</sup> EMC32-E or	R&S <sup>®</sup> EMC32-U9E	1518.2870.02
R&S <sup>®</sup> EMC32-E+ to version 9.xx and 10.0		
Upgrade of R&S <sup>®</sup> EMC32-S to version 9.xx and 10.0	R&S <sup>®</sup> EMC32-U9S	1518.2829.02
Upgrade from R&S <sup>®</sup> EMC32-A/R&S <sup>®</sup> EMC32-A+/R&S <sup>®</sup> EMC32-C/R&S <sup>®</sup> EMC32-W+	R&S <sup>®</sup> EMC32-UP9	1504.9010.14
version 8.xx or lower to version 9.xx and 10.0		
1 year EMI software upgrade service (software maintenance)	R&S <sup>®</sup> EMC32-K90	1529.7891.02
1 year EMS software upgrade service (software maintenance)	R&S <sup>®</sup> EMC32-K91	1529.7904.02

A multi-user license concept is available for customers who need more than one license per location.

Download of R&S<sup>®</sup>EMC32 EMC measurement software:\_www.rohde-schwarz.com/software/emc32

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