





**SPECIFICATIONS****RECOMMENDED PC HARDWARE REQUIREMENTS:**

- Intel i5 or equivalent, 4 GB of RAM, Screen resolution 1,024 x 768 pixels and higher, 2 available USB (2.0) Ports

**OPERATING ENVIRONMENTS:**

- Windows 11, Windows 10 64-bit

**SUPPORTED INTERFACE HARDWARE (Not Included):**

- National Instruments GPIB Controller
  - NI GPIB-USB-HS+ (AR P/N 10013688) or equivalent National Instruments device required for GPIB communications
- National Instruments DAQ (Data Acquisition) device
  - NI USB-6212 (AR P/N 10025318) is recommended, but the configuration is customizable

**SUPPORTED COMMUNICATIONS INTERFACES:**

- IEEE 488 (GPIB), National Instruments NI GPIB-USB-HS+ (AR P/N 10013688) or equivalent device required
- RS-232
- USB
- Ethernet (creation of a National Instruments VISA TCP/IP Resource required)

**EQUIPMENT DRIVERS:**

- A full list of included equipment drivers can be found at the end of this document.
- For equipment that is not currently supported, please contact the factory.
- Equipment drivers can be written by the user in a multitude of programming languages (LabVIEW, Visual Studios, etc.) and imported as dynamic link library (DLL) files.
  - Equipment Driver Templates are included for LabVIEW and Visual C++
- Includes demonstration drivers for all controllable equipment types to allow operation without equipment.

**REPORTS:**

- Microsoft Word/Excel 2010 or newer required for all output formats
- Output Formats
  - Microsoft Word / Excel
  - PDF
- Included Data
  - All data collected in numerical & graphical formats
  - Test information (test standard, file paths, completion date, etc.)
  - User and Customer information (optional)
  - EUT monitoring data including Pass / Fail status and user comments
  - Test setup information (test level, frequencies, dwell times and EUT monitoring setup)
  - Equipment names and calibration dates
  - Basic equipment interconnect diagram

**SPECIAL FEATURES:**

- Fast Fourier Transform (FFT) sweep type supported during emissions scans
- Multi-tone capability for substitution method, Radiated and Conducted Immunity testing
  - Simultaneous control of up to four (4) signal generators
  - A user-supplied, low-power resistive splitter is required to combine the generator outputs (e.g. Mini-Circuits p/n ZFRSC-183B-S+)
- Reverberation immunity tests supported
- Test up to 2 modulations in addition to CW per frequency during one test
- Pause, stop, and resume tests without data loss

**SPECIFICATIONS**

**SPECIAL FEATURES:**

- User defined amplitude and frequency thresholding capability (Supports MIL STD 461 thresholding method)
- Pre-defined test standards
- Simple creation of custom test standards
- Graphical display of test levels
- Graphical display of RF path for easy test configurations and changes
- Automated harmonics check (IEC 61000-4-3)
- Automatic control of AR Systems (see **Compatible AR Systems**)
- Automatic software updates (requires Internet access)

**COMPATIBLE AR SYSTEMS:**

- CI00250A
- CI00400A
- CI00401A
- CI00402
- CI00403
- CI01000

**LICENSE INFORMATION:**

- See page 5

**SUPPORT CONTRACT INFORMATION:**

- See page 5

**EXPORT COMPLIANCE:**

- The export classification for this software is EAR99. This software is controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.



## Support Contract Information

An annual support contract provides the following additional services and can be accessed by phone, email, or Remote PC access (if available).

Available emcware® Services	emcware® purchase	Support Contract <sup>1</sup>
<b>Access to emcware® Support Website</b>		
Bug fixes, maintenance updates, and driver updates for current version	✓	✓
Free upgrades to new versions		✓
Automatic notification of available updates	✓	✓
<b>Access to AR Applications and Software Engineers</b>		
Setup support		✓
Problem acknowledgement within 24 hours		✓
Email, phone and remote support		✓
Dedicated support staff focused on providing solutions		✓
<b>Equipment Driver Support</b>		
Driver Creation	Available upon request <sup>2</sup>	
Driver Support	✓	✓
Driver Templates <sup>3</sup>	✓	✓
Driver Templates with example code <sup>3</sup>		✓

<sup>1</sup> Support contract is valid for 12 months after time of purchase

<sup>2</sup> Additional charges may apply - Call for more information

<sup>3</sup> User knowledge of a programming language that can generate Windows Dynamic Link Library files (\*.dll) is required

## License Information

The emcware® can be installed on any number of PCs at one time. The supplied USB license key will unlock the full feature list of the PC it is connected to (see below).

emcware® Features	USB License Key	No USB License Key
Equipment Setups	✓	✓
Test Setups	✓	✓
Immunity Calibrations	✓	
Immunity Tests	✓	
Emissions Tests	✓	
Report Generation	✓	✓

**INCLUDED EQUIPMENT DRIVERS**

<b>Amplifiers</b>	
AR RF/MICRO INSTR	<i>All Models Supported*</i>
ROHDE & SCHWARZ	BBA1xx Series
EXODUS	Amp series
<b>Antenna Controllers</b>	
SUNAR (Formerly Sunol Sciences)	SC98VA, SC110VA
ETS	1050, 1060, 1090A, 2090A, EMCenter (7006-001)(AUX)
FRANKONIA	FC06
HD	HD100
MATURO	NCD, FCU (Polarization Only)
<b>Audio Analyzers</b>	
Stanford Research	SR1+
<b>Field Monitors</b>	
AR RF/MICRO INSTR	<i>All Models Supported*</i>
CHAUVIN ARNOUX	CA43
HOLADAY INDUSTRIES	HI-6105, HI-6100
NARDA	EMC-20, NBM-520, EMR-200, EP60x Series, 8053B
TDK	SI-300
<b>Power Meters</b>	
AR RF/MICRO INSTR	<i>All Models Supported*</i>
AGILENT/HP	DSO-X 3xxx Series, EPM E44117, EPM E44118, EPM E44119, EPM 441A, EPM E442, N1913A, N1914A 436A, 437B, 438A
BIRD	4421
BOONTON	4230, 4540, 9200, BI 55xx
DARE	RPR1004A, RPR1006A, RPR1018A
KEYSIGHT	U2000 Series
LADYBUG	LB59xx Series
MARCONI	6960
ROHDE & SCHWARZ	NRP, NRVS, NRVD, URV5
TESEQ	PM6003
TEKTRONIX	TDS 744A
<b>Probe Positioners</b>	
PROBOTIC SYSTEMS	801
TDK	SI 300
INNCO	CO3000
MATURO	MCU
<b>Pulse Generators</b>	
AGILENT/HP	3325A, 33220A, 8116A, 81101A
KEYSIGHT	33xxx Series

<b>Receivers</b>	
AGILENT/HP	MXE N9038A
ROHDE & SCHWARZ	ESIB, ESCI, ESPI, ESU, ESW, ESR
<b>Spectrum Analyzers</b>	
ADVANTEST	R3265A
AGILENT/HP	ESA Series, PSA Series, N90x0A (CXA, EXA, MXA, PXA), E740Xa, 856x Series, 859x Series, 8542E, 8546A
KEYSIGHT	X Series Signal Analyzers, N9320B (BSA), Fieldfox, N932xC Series
RIGOL	DSA800, RSA3000 Series, RSA5000 Series
ROHDE & SCHWARZ	FSL, FSP, FSV3000
TEKTRONIX	RSA3408A (Power Meas Only)
The EMC Shop	ESA
<b>Reverberation Tuners</b>	
COMTEST	LUF1000
<b>Signal Generators</b>	
AR RF/MICRO INSTR	<i>All Models Supported*</i>
AGILENT/HP/KEYSIGHT	DSO-X 3xxx Series, E8257C, E8257D, ESG, N51xxB, N51xxA, N9310A, 33120A, 33250A, 3336C, 8341, 8350B, 83620B, 83630B, 83731, 8642B, 8648, 8657A, 8657B, 8662A, 8663A, 8664A, 8673B
ANRITSU	MG3694A
BERKLEY NUCLEONICS	845/835-6
FLUKE	6060A, 6061A, 6062A
GIGATRONICS	1018, 6080A, 12000A
HAMEG	HM8134-3, HM8135
IFR	341x Series
MARCONI	2022, 2023, 2024, 2025, 2030, 2031, 2032
ROHDE & SCHWARZ	SMB, SMBV100A, SMC, SME, SMF, SMG, SMH, SML, SMP, SMR, SMT, SMX, SMY
ANAPICO	APSINx000, 12G, 20G, 26G
RIGOL	DSG8xx Series, DSG3xxx Series
The EMC Shop	ERG
WILTRON	6668B, 6747A
<b>System Controllers</b>	
AR RF/MICRO INSTR	<i>All Models Supported*</i>
TDK	SI-300
<b>Turntable Controllers</b>	
SUNAR (Formerly Sunol Sciences)	SC98VT, SC110VT
EMCO	1060, 1090T, 2090T, EMCenter (7006-001)
FRANKONIA	FC06
HD	HD100
MATURO	NCD

NOTE: AR models created after the current release of the software may not be fully supported, but will be supported in subsequent releases within the scope of the emcware® software.

AR RF/Microwave Instrumentation • 160 Schoolhouse Rd, Souderton, PA 18964

To order AR Products, call: 215.723.8181. For an applications engineer, call: 800.933.8181. Direct to Service call: 215.723.0275 or email: [service@arworld.us](mailto:service@arworld.us)  
For Faxing Orders: 866.859.0582 (Orders Only Please) info@arworld.us

Approved for public release by AR RF/Microwave Instrumentation ISO 9001:2015 Certified • ISO 17025:2017 accredited

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