



**Model CI00401A, M1, M2**  
**RF Conducted Immunity System**  
**150 Watts**  
**100 kHz–400 MHz**



Complete Testing Solutions to the following standards:

- ISO 11452-4
- GMW 3097
- ES-XW7T-1A278-AC
- DC-11224
- BMW GS95002
- Peugeot B217110
- Renault 36-00-8081-G
- IEC 61000-4-6
- Other automotive standards

The Model CI00401A is a fully self-contained state of the art system designed to test RF Conducted Immunity. The CI00401A contains all the instruments needed to perform conducted immunity testing for automotive and IEC specifications. The system contains a signal generator, three channels of power monitoring, 150W AR amplifier 100 kHz to 400 MHz, directional coupler, and emcware® control software. Everything is contained in a single housing, which eliminates setup issues. This system provides the versatility needed for every test laboratory and equipment manufacturer. The RF amplifier and the signal generator can be used independently of the system. If special needs arise or standards were to change, a larger amplifier can be connected to the system. The use of spectrum analyzers and monitoring equipment may also be controlled by the software.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Internal Test Specifications (See Note 1)	
ISO 11452-4	
GMW 3097	
ES-XW7T-1A278-AC	
DC-11224	
BMW GS95002	
Peugeot B217110	
Renault 36-00-8081-G	
IEC-61000-4-6	
Other automotive standards	

Power Meter Specifications (See Note 2)	
Power heads	3
Type	Diode
Frequency	10 kHz to 8 GHz
Range	-60 to +20 dBm

Signal Generator Specifications	
Frequency range	9 kHz to 1.2 GHz
resolution	1Hz
Power range	-140 to +13 dBm
resolution	0.1 dB
Modulation	AM, FSK, FM, Phase, External Pulse

RF Amplifier Specifications	
Frequency range	100 kHz to 400 MHz
Power rating	150 Watts Minimum
1dB compression	120 Watts Minimum
Harmonic Distortion	-20 dBc at 120 Watts
Mismatch tolerance	100% of rated power without fold back. Will operate without damage or oscillation with any magnitude of source and load impedance.
Gain	52 dB minimum

NOTE 1: Specifications can be met using AR-specified external accessories (injection probes, monitor probes, cal fixtures, CDN's, attenuators, etc.) Contact AR for further information.

NOTE 2: The use of a spectrum analyzer may be necessary on some of the low level bulk current injection tests. This is especially true on power and I/O lines with a great amount of ambient noise.

Connections	
RF Out	Type N (front)
Monitor Port In	Type N (front)
Signal Generator Out	Type N (rear)
Directional Coupler In	Type N (rear)
Amplifier Out/In	Type N (rear)
Pulse In	BNC (rear)
Communication	GPIB (IEEE 488) (rear)
Directional Coupler Fwd Out	Type SMA (rear)
Directional Coupler Fwd In	Type SMA (rear)
Directional Coupler Rev Out	Type SMA (rear)
Directional Coupler Rev In	Type SMA (rear)
Monitor Port Out	Type SMA (rear)
Monitor Port In	Type SMA (rear)
Power Meter Calibration Port Out	Type SMA (rear)

General	
Power	115/230 VAC 50/60 Hz, single phase 16A
Breaker	2 pole, 20A
Cooling	active cooling, air ventilation
Environmental conditions	10°C - 40°C
Dimensions,	50.3 x 42.2 x 52.1 cm 19.8 x 16.6 x 21.7 in
Weight	22.7 kg (50.0 lb)

Control Software	
emcware® Software Suite	
PC Requirements	
Computer	2 GHz Single Core Processor
Operating system	Windows, XP, Windows Vista, Windows 7
RAM	1 GB Minimum
Screen Resolution	1024 x 768
Ports	2 available USB 2.0 ports

Options	
1	External USB data acquisition card.
2	Laptop PC with software preinstalled

#### MODEL CONFIGURATIONS

MODEL	DESCRIPTION
CI00401AM1	Includes Option 2
CI00401AM2	Includes Options 1 and 2

#### ACCESSORY KITS

Application	Model	Description
IEC 61000-4-6*	TK1000	Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for IEC testing.
Automotive	TK3000	Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for automotive testing.

\*Requires additional AF10050, 10 dB, 50-watt attenuator.