



CI00402

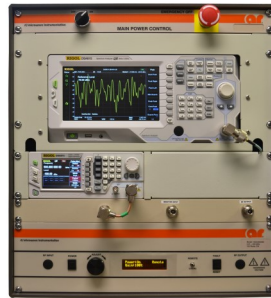
- M1-M5
- RF Conducted Immunity System
- 100 Watts nominal
- 10kHz-400MHz

Features

Complete Testing Solutions to the following standards:

- MIL-STD-461 CS114
- DO160 (Section 20) BCI Testing
- EN/IEC 61000-4-6
- IEC 60601-1-2
- EN 50130-4
- EN 61000-6-1/2
- EN 55024
- ISO 11452-4

The Model CI00402 is a fully self-contained state of the art system designed to test RF Conducted Immunity. The system contains a signal generator, spectrum analyzer, 100W nominal AR amplifier, a 10 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 labor-



atory and equipment manufacturer. The RF amplifier, signal generator and spectrum analyzer 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 analyzer and signal generator may also be controlled by software.

Option 1 adds data acquisition capability. Option 2 provides a laptop PC. Option 3 is a lower cost solution providing all the functions and features of the full CI00402 base model without the cost of the internal amplifier.

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) |
|---|
| CI00402 |
| MIL-STD-461 (CS114) |
| DO160 (Sec 20 BCI Test) |
| IEC/EN 60601-1-2 |
| IEC/EN 50130-4 |
| IEC/EN 61326 |
| IEC/EN 61000-6-1 |
| IEC/EN 61000-6-2 |
| IEC/EN 61000-4-6 |
| CISPR 24/EN 55024 |
| ISO 11452-4 |
| EMC-CS-2009 |
| GM GMW3097 |
| BMW GS95002 |
| Chrysler DC-11224 |
| Renault 36-00-808 |

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.

| Signal Generator Specifications | |
|---------------------------------|-------------------------------------|
| Frequency range resolution | 9 kHz to 1.5 GHz 0.01Hz |
| Power range resolution | -110 to +13 dBm 0.01dB |
| Modulation | AM, FM, Phase, Int Pulse, Ext Pulse |

| Spectrum Analyzer Specifications | |
|------------------------------------|--------------------------------------|
| Frequency range resolution | 9 kHz to 1.5 GHz 1 Hz |
| RF Power CW (max) Atten = 30 dB | 20 dBm |
| Resolution BW | 10 Hz to 1 MHz |
| Video BW | 1 Hz to 3 MHz |
| Amplitude Measurement Range | -110 dBm to +20 dBm in 1 dB steps |
| Preamplifier Gain | 20 dB (nom) |
| Sweep Time, span > 100 Hz | 10 msec to 1500 sec |

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Specifications

| RF Amplifier Specifications | |
|-----------------------------|--|
| Frequency range | 10 kHz to 400 MHz |
| Power rating | 100 Watts Minimum |
| 1dB compression | 75 Watts Minimum |
| Harmonic Distortion | -20dBc at 75 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 | 50 dB minimum |

| Connections | |
|-----------------------------|-----------------|
| RF Out | Type N (front) |
| Monitor Port In | Type N (front) |
| Signal Generator Out | Type N (rear) |
| RF Amp In | Type N (rear) |
| Directional Coupler In | Type N (rear) |
| RF Amp Out | Type N (rear) |
| Pulse In | BNC (rear) |
| Communication | USB B (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) |

| General | |
|--------------------------|--|
| Power | 115/230 VAC, 50/60 Hz, single phase 610W max |
| Breaker | 2 pole, 20A |
| Cooling | active cooling, air ventilation |
| Environmental conditions | 10°C - 40°C |
| Dimensions, | 50.3 x 53.3 x 55.1 cm 19.8 x 21.0 x 21.7 in |
| Weight | 49.9 kg (110 lb) |

| Control Interface | |
|-------------------|----------------------------|
| USB B | Connection to the computer |

| Control Software | |
|-------------------------|--|
| emcware® Software Suite | |
| PC Requirements | |
| Computer | Intel Pentium 4, AMD Athlon 64 or better processor |
| Operating system | Windows 7, Windows 8, Windows 10 |
| RAM | 2 GB Minimum |
| Screen Resolution | 1024 x 768 |
| Ports | 2 available USB 2.0 ports |
| Software Requirements | Microsoft Word/Excel 2010 or newer |

| Options | |
|---------|--|
| 1 | Data acquisition card |
| 2 | Laptop PC |
| 3 | Amplifier and directional coupler removed; requires use of external amplifier. |

| MODEL CONFIGURATIONS | |
|----------------------|---|
| MODEL | DESCRIPTION |
| CI00402M1 | Includes Option 1 |
| CI00402M2 | Includes Option 2 |
| CI00402M3 | Includes Option 3 |
| CI00402M4 | Includes Options 1 & 2 |
| CI00402M5 | Includes 17025 traceable calibration for signal generator and spectrum analyzer |

Accessory Kits

| Application | Model | Description |
|-------------------------|--------|---|
| IEC 61000-4-6 BCI Clamp | TK1000 | Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for IEC testing of cables up to 32mm diameter. |
| IEC 61000-4-6 BCI Clamp | TK1001 | Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for IEC testing of cables up to 66mm diameter. |
| IEC 61000-4-6 EM Clamp | TK1002 | Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for IEC testing. |
| MIL-STD-461 DO160 | TK2000 | Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for MIL-STD-461 and DO160 testing. |
| Automotive | TK3000 | Conducted immunity test kit containing all the attenuators, injection probes, calibration fixtures, calibration resistors, and termination resistors necessary for automotive testing. |