



DO-160 & MIL-STD-461G

# Indirect Lightning Test System

## AVI-LV3



 This document has been optimized for electronic media

 Smart navigation through technical specifications. Click the green links.



### Accredited Calibration

Quality at EMC PARTNER is based on an ISO 9001 management system. This is the foundation for an ISO 17025 accreditation verified by the Swiss Calibration Service (SCS). SCS No. 146 is the accreditation number of EMC PARTNER AG. Locally accredited but recognized worldwide through affiliation with the ILAC organisation



WHEN GETTING RESULTS MATTERS

## THERE IS ONLY ONE CHOICE

Military and avionic testing is all about quality and precision. AVI-LV3 brilliantly fulfills these requirements.

A flexible solution that includes:

- › MIL-STD-461: CS117, Level 1 (internal equipment)
- › RTCA DO-160: SECTION 22, Level 3
- › EUROCAE ED-14: SECTION 22, Level 3

Ease of use, compact size and large aperture coupler makes AVI-LV3 the most efficient and technically advanced instrument in this category.

# MULTI TALENTED SOLUTION

The first System to fully integrate all waveforms from MIL-STD-461G and DO-160. Combined with a single coupler where the EUT cable passes only once, AVI-LV3 is a compact and resourceful solution to indirect lightning testing needs.



## AVI-LV3 Test System

- AVI-LV3 compact unit

## Test Accessories

- **CN-BT7**  
Only one coupler for all 5 waveforms. No change of the EUT cable. Aperture (55x80mm)
- **CN-GI-CI-V**  
Voltage coupler for WF4 cable bundle testing. Aperture (60x120mm)

## Included Benefits

<b>Stable</b>	Pulse reproducibility during test cycle
<b>Precise</b>	Repeatable test results over long time
<b>Fast</b>	Minimum setup and calibration time
<b>Flexible</b>	User selectable MS and MB timing
<b>Polarity</b>	Maintain test integrity by electronic switching
<b>Automated</b>	Save and repeat test routines.

Pre-programmed Multiple Stroke (MS) and Multiple Burst (MB) functions

# AVAILABLE CIRCUITS

AVI-LV3 is a compact unit that includes all waveforms for RTCA DO-160: Section 22 and MIL-STD-461G: CS117 testing. All event types are available: PIN Injection, Cable Injection and Ground Injection



## Waveform 1 (6.4/69 $\mu$ s)

MIL-STD-461 / CS117

### Current Impulse

- › Cable Bundle Single Stroke
- › Cable Bundle Multiple Stroke



## Waveform 2 (0.1 and 0.3/6.4 $\mu$ s)

RTCA DO-160 / S.22

MIL-STD-461 / CS117

### Voltage Impulse

- › Cable Bundle Single Stroke
- › Cable Bundle Multiple Stroke



## Waveform 3 (1MHz & 10MHz)

RTCA DO-160 / S.22

MIL-STD-461 / CS117

### Voltage & Current Impulse

- › PIN injection
- › Cable Bundle Single Stroke
- › Cable Bundle Multiple Stroke
- › Cable Bundle Multiple Burst



## Waveform 4 (6.4/69 $\mu$ s)

RTCA DO-160 / S.22

MIL-STD-461 / CS117

### Voltage Impulse

- › PIN Injection
- › Ground Injection Single Stroke
- › Ground Injection Multiple Stroke



## Waveform 5A (40/120 $\mu$ s)

RTCA DO-160 / S.22

MIL-STD-461 / CS117

### Current Impulse

- › PIN Injection
- › Cable Bundle Single Stroke
- › Cable Bundle Multiple Stroke



## Waveform 6 (0.25/4 $\mu$ s)

RTCA DO-160 / S.22

MIL-STD-461 / CS117

### Current Impulse

- › Cable Bundle Multiple Burst

## EMERGENCY STOP



### Enhanced safety is standard

Red/Yellow Emergency Stop button on front panel of generator can be complemented with remote option. Add warning lamps and a test cabinet for enhanced test place safety.

## UNIQUE FEATURES

Leading technology - New designs take advantage of latest innovations.

### Fast and stable



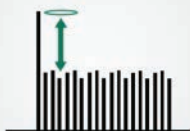
No generator or coupler adjustments required. System is ready for calibration and long duration testing.

### State of the art



Latest technology used in electronic circuits and coupler design.

### Adjust pulse

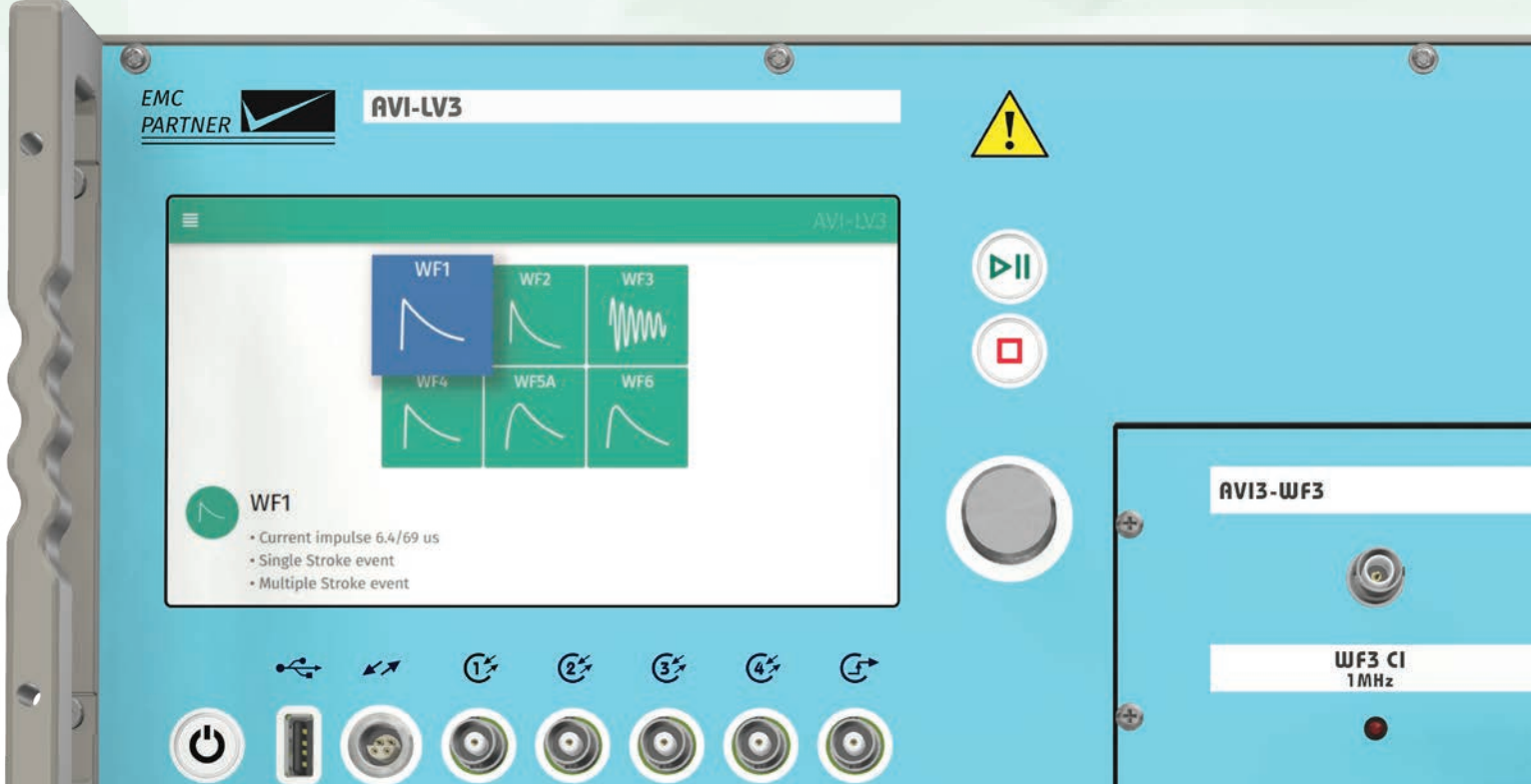


Multiple Stroke adjustment for DO-160 and MIL-STD-461.

### Integrated decouplers



No external couplers needed to decouple powered EUTs for PIN Injection or ground injection testing.



## EPOS – TOUCH THE FUTURE

EMC PARTNER Operating System (EPOS) is an independent software with free-of-charge updates for lifetime. EPOS is based on a full colour graphic interface and easy to follow on-screen graphics. Pop-up help gives information when needed, directly during the setting process. EPOS is full of features found only in top of the range instrumentation.

### Integrated web server



Use any browser to access test reports from the generator via ethernet.

### Simple touch screen navigation



Save time with the latest in intuitive menu structures.

### Interactive interface



User interface adapted to specific circuits.

### We speak your language



Select between English, German, French, Italian, Spanish, Russian, Chinese (simplified + traditional)



# TEMA3000 SOFTWARE SUITE

The best solution for professional EMC Test Labs enables comfortable test setups, easy parameter changes and customizable test reports and DSO integration.

## Customizable test reports



- › Customize & edit your protocols
- › Export to multiple file formats
- › Integrate DSO measurements

## Manage tests and sequences



- › Predefined test setups
- › Save and load own tests and sequences

## Productive workflow



- › Minimal learning time
- › Integrated assistant function

## Smart connectivity



- › Transfer tests / reports to PC
- › Remote control from computer



# Other systems for indirect lightning PIN injection & Cable bundle tests

DO-160 section 22

MIL-STD-461 CS117

Aircraft OEM specific standards

Established worldwide

[www.emc-partner.com](http://www.emc-partner.com)



# Technical Specifications

# TEST SYSTEM

DO-160 G SECTION 22 LEVEL 3 &  
MIL-STD-461G CS117 LEVEL 1 (INTERNAL EQUIPMENT)

Test equipment	DO-160G Section 22 level 3	MIL-STD-461G CS117 level 1 (internal equip.)	Manufacturers (Airbus, Boeing, etc)
AVI-LV3	✓	✓	✓
Accessories & coupling devices			
DN-LISN160-32	✓	✓	✓
SHUNTOE1	✓	✓	✓
V-PROBE-SI	✓	✓	✓
I-PROBE-MB-P1	✓	✓	✓
CN-BT7	✓	✓	✓
CN-GI-CI-V	optional	✓	optional
WARNING-LAMP	optional	optional	optional
EMERGENCY-STOP	optional	optional	optional
Software			
TEMA3000 & Modules	✓	✓	✓

# TEST SYSTEM

## 1. AVI-LV3 TEST SYSTEM

### AVI-LV3 circuit: WF1 cable induction

Standards	DO-160G S22, MIL-STD-461G CS117, other
Coupling mode	Cable Induction (CI)
Current waveform WF1	6.4 $\mu\text{s} \pm 20\%$ / 69 $\mu\text{s} \pm 20\%$
Test level	specified at coupler output
Test level single stroke	25 A – 900 A +20%, -0%
Test level multiple stroke	25 A – 900 A +20%, -0% (first stroke) 20 A – 300 A +50%, -0% (subsequent stroke)
Pulse repet. single stroke	up to 2 / 1 s @ 25 A, 1 / 7 s @ 900 A
Polarity	positive, negative, alternating
Programmable ramp	current
Requires	CN-BT7



### AVI-LV3 circuit: WF2 cable induction

Standards	DO-160G S22, MIL-STD-461G CS117, other
Coupling mode	Cable Induction (CI)
Voltage waveform WF2	rise time: < 100 ns or < 340 ns selectable pulse duration: 6.4 $\mu\text{s} \pm 20\%$
Test level	specified at coupler output
Test level single stroke	25 V – 1600 V +20%, -0%
Test level multiple stroke	25 V – 700 V +20%, -0% (first stroke) 25 V – 350 V +50%, -0% (subsequent stroke)
Pulse repet. single stroke	up to 2 / 1 s @ 25 V, 1 / 1.5 s @ 1600 V
Polarity	positive, negative, alternating
Programmable ramp	voltage
Requires	CN-BT7

### AVI-LV3 circuit: WF3, 1 MHz, pin injection

Standards	DO-160G S22, other
Coupling mode	pin injection / direct application
Output impedance	25 $\Omega$
Voltage, current WF3	frequency: 1 MHz $\pm 20\%$ damping: 25 – 75 % (1st to 5th peak)
Test level	specified at application point
Test level single stroke	50 V – 750 V +10%, -0% 2 A – 30 A +10%, -0% in short circuit 100 V – 750 V +10%, -0% 4 A – 30 A +10%, -0% in short circuit
Pulse repet. single stroke	up to 2 / 1 s @ 100 V – 750 V
Polarity	positive, negative, alternating
Synchronization	automatic on power peak or 0 – 359°, step 1°
Programmable ramp	voltage
EUT max. AC-voltage	230 V

<b>EUT max. supply frequency</b>	800 Hz
<b>EUT max. DC-voltage</b>	± 50 V

### AVI-LV3 circuit: WF3, 1 MHz, cable induction

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Coupling mode</b>	Cable Induction (CI)
<b>Voltage, current WF3</b>	frequency: 1 MHz ± 20 % damping: 25 – 75 % (1st to 5th peak)
<b>Test level</b>	specified at coupler output
<b>Test level single stroke</b>	10 V – 1900 V +20%, -0%
<b>Test level multiple stroke</b>	10 V – 1900 V +20%, -0% (first stroke) 10 V – 1000 V +50%, -0% (subseq. stroke)
<b>Test level multiple burst</b>	10 V – 700 V +20%, -0%
<b>Pulse repet. single stroke</b>	up to 2 / 1 s @ 100 V – 750 V
<b>Polarity</b>	positive, negative, alternating
<b>Programmable ramp</b>	voltage
<b>Requires</b>	CN-BT7

### AVI-LV3 circuit: WF3, 10 MHz, cable induction

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Coupling mode</b>	Cable Induction (CI)
<b>Voltage, current WF3</b>	frequency: 10 MHz ± 20 % damping: 25 – 75 % (1st to 5th peak)
<b>Test level</b>	specified at coupler output
<b>Test level single stroke</b>	50 V – 1100 V +20%, -0%
<b>Test level multiple stroke</b>	50 V – 1100 V +20%, -0% (first stroke) 50 V – 800 V +50%, -0% (subsequent stroke)
<b>Test level multiple burst</b>	50 V – 800 V +20%, -0%
<b>Pulse repet. single stroke</b>	up to 2 / 1 s @ 100 V – 1100 V
<b>Polarity</b>	positive, negative, alternating
<b>Programmable ramp</b>	voltage
<b>Requires</b>	CN-BT7

### AVI-LV3 circuit: WF4, pin injection

<b>Standards</b>	DO-160G S22, other
<b>Coupling mode</b>	pin injection / direct application
<b>Output impedance</b>	5 Ω
<b>Voltage, current WF4</b>	6.4 μs ± 20 % / 69 μs ± 20 %
<b>Test level</b>	specified at application point
<b>Test level single stroke</b>	50 V – 500 V +10%, -0% 10 A – 100 A +10%, -0% in short circuit
<b>Pulse repet. single stroke</b>	up to 2 / 1 s @ 50 V, 1 / 3 s @ 500 V
<b>Polarity</b>	positive, negative, alternating
<b>Synchronization</b>	automatic on power peak
<b>Programmable ramp</b>	voltage
<b>EUT max. AC-voltage</b>	230 V
<b>EUT max. supply frequency</b>	800 Hz
<b>EUT max. DC-voltage</b>	± 50 V

### AVI-LV3 circuit: WF4 ground injection

Standards	DO-160G S22
Coupling mode	Ground Injection (GI)
Voltage waveform WF4	6.4 $\mu$ s $\pm$ 20 % / 69 $\mu$ s $\pm$ 20 %
Test level	specified at application point
Test level single stroke	10 V – 1600 V +20%, -0%
Test level multiple stroke	10 V – 800 V +20%, -0% (first stroke) 10 V – 400 V +50%, -0% (subsequent stroke)
Pulse repet. single stroke	up to 2 / 1 s @ 50 V, 1 / 9 s @ 1600 V
Polarity	positive, negative, alternating
Programmable ramp	voltage
EUT max. power	230 V / 16 A AC 50 – 800 Hz and DC

### AVI-LV3 circuit: WF4 cable induction

Standards	MIL-STD-461G CS117, other
Coupling mode	Cable Induction (CI)
Voltage waveform WF4	6.4 $\mu$ s $\pm$ 20 % / 69 $\mu$ s $\pm$ 20 %
Test level	specified at coupler output
Test level single stroke	max. 10 V – 600 V +20%, -0%
Test level multiple stroke	max. 10 V – 300 V +20%, -0% (first stroke) max. 10 V – 150 V +50%, -0% (subsequent stroke)
Pulse repet. single stroke	up to 1 / 8 s @ 600 V
Polarity	positive, negative, alternating
Programmable ramp	voltage
Requires	CN-GI-CI-V

### AVI-LV3 circuit: WF5A, pin injection

Standards	DO-160G S22, other
Coupling mode	pin injection / direct application
Output impedance	1 $\Omega$
Voltage, current WF5A	40 $\mu$ s $\pm$ 20 % / 120 $\mu$ s $\pm$ 20 %
Test level	specified at application point
Test level single stroke	25 V – 50 V +20%, -0% 25 A – 50 A +20%, -0% in short circuit 50 V – 500 V +10%, -0% 50 A – 500 A +10%, -0% in short circuit
Pulse repet. single stroke	up to 2 / 1 s @ 50 V, 1 / 5 s @ 500 V
Polarity	positive, negative, alternating
Synchronization	automatic on power peak
Programmable ramp	voltage
EUT max. AC-voltage	230 V
EUT max. supply frequency	800 Hz
EUT max. DC-voltage	$\pm$ 50 V

### AVI-LV3 circuit: WF5A cable induction

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Coupling mode</b>	Cable Induction (CI)
<b>Current waveform WF5A</b>	40 $\mu\text{s} \pm 20\%$ / 120 $\mu\text{s} \pm 20\%$
<b>Test level</b>	specified at coupler output
<b>Test level single stroke</b>	20 A – 1800 A +20%, -0%
<b>Test level multiple stroke</b>	20 A – 1800 A +20%, -0% (first stroke) 20 A – 390 A +50%, -0% (subsequent stroke)
<b>Pulse repet. single stroke</b>	up to 2 / 1 s @ 50 A, 1 / 14 s @ 1800 A
<b>Polarity</b>	positive, negative, alternating
<b>Programmable ramp</b>	current
<b>Requires</b>	CN-BT7

### AVI-LV3 circuit: WF6 cable induction

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Coupling mode</b>	Cable Induction (CI)
<b>Current waveform WF6</b>	0.25 $\mu\text{s} \pm 20\%$ / 4 $\mu\text{s} \pm 20\%$
<b>Test level</b>	specified at coupler output
<b>Test level single stroke</b>	2.5 A – 75 A +20%, -0%
<b>Test level multiple burst</b>	2.5 A – 75 A +20%, -0%
<b>Pulse repet. single stroke</b>	up to 2 / 1 s @ 5 A – 75 A
<b>Polarity</b>	positive, negative, alternating
<b>Programmable ramp</b>	current
<b>Requires</b>	CN-BT7

### AVI-LV3 control features

<b>Operating system</b>	EPOS proprietary firmware
<b>Languages</b>	8 menu languages, selectable
<b>User interface</b>	7" capacitive touch display
<b>Connectivity</b>	gigabit ethernet, USB, RS485
<b>Programmable patterns</b>	DO-160, multiple stroke, multiple burst, custom Airbus ABD patterns, Boeing D6 patterns for multiple stroke, multiple burst (waveforms 3, 4, 5A)
<b>Synchronization on signals</b>	40 – 800 Hz
<b>Synchronization source</b>	EUT Power
<b>Synchronization angle</b>	automatic peak synchronization as per standard
<b>Impulse polarity</b>	positive, negative, electronic switching
<b>Automatic ramp</b>	test level
<b>Trigger out</b>	BNC, max. 6 V
<b>Programmable connectors</b>	6 BNC connectors (inputs/outputs) as follows
<b>Programmable input functions</b>	Trigger input, Start Test, Stop Test, EUT Fail, EUT Mark, Emergency Stop
<b>Programmable input max. voltage</b>	low range: 0 – 1.5 V, high range: 2.3 – 24 V
<b>Programmable output functions</b>	Running State, Safety Circuit State

<b>Programmable output max. U, I</b>	max. 24 V, max. 300 mA
<b>Safety features (standard)</b>	Emergency stop button on front panel red/yellow as per IEC 60947-5-5, IEC 60204-1, ISO 13850, Safety circuit
<b>Safety accessories (optional)</b>	WARNING LAMP (24 V, max. 2.4 W), Remote EMERGENCY STOP button

### AVI-LV3 supply, weight, dimensions, climatic conditions

<b>Operating voltage</b>	100 V - 240 V $\pm$ 10% (50/60 Hz)
<b>Power consumption</b>	ON < 400 VA, standby < 15 VA
<b>Weight</b>	50 kg
<b>W x d x h</b>	45 x 60 x 37 cm
<b>Version</b>	19" unit, 8 UH
<b>Temperature range</b>	10 – 35 °C
<b>Humidity</b>	< 80 % non-condensing
<b>Air pressure</b>	86 – 106 kPa

### Included articles

<b>Power cord</b>	with country plug
<b>User manual</b>	with conformity declaration
<b>Calibration certificate</b>	factory calibration

### AVI-LV3 accessories

<b>LISN</b>	DN-LISN160-32
<b>Calibration load</b>	SHUNTOE1, for WF2 and WF3 short circuit
<b>Voltage probe</b>	V-PROBE-SI, common and differential mode
<b>Current probe</b>	I-PROBE-MB-P1
<b>Coupling devices (CI)</b>	CN-BT7, for WF 1, 2, 3, 5A, 6 CN-GI-CI-V, for WF4 in MIL-STD-461G, CS117
<b>Software</b>	TEMA3000 and modules



# COUPLING DEVICES

## CN-BT7

<b>Application</b>	coupling device for AVI-LV3 / cable induction
<b>Suitable for waveforms</b>	WF1, WF2, WF3, WF5A, WF6
<b>Turn ratio</b>	1 : 1
<b>EUT voltage max.</b>	500 V AC or DC
<b>EUT current max.</b>	16 A / 800 Hz (when testing WF2) 32 A / 400 Hz (when testing WF2) 32 A / 800 Hz (when testing all other WFs) 426 A / 50-60 Hz (when testing all other WFs)
<b>Aperture</b>	5.5 x 8 cm
<b>Dimensions</b>	34 x 18 x 21 cm
<b>Weight</b>	18 kg
<b>For generator</b>	<a href="#">AVI-LV3</a>



## CN-GI-CI-V

<b>Standards</b>	MIL-STD-461G CS117, DO-160G S22, other
<b>Application</b>	injection probe for WF4, WF5A (voltage) in cable induction mode
<b>Test level WF4 (CI)</b>	max. 600 V with AVI-LV3
<b>Test level WF5A (CI)</b>	max. 600 V with AVI-LV3
<b>EUT supply</b>	max. 130 A @ 50-60 Hz with AVI-LV3 max. 20 A @ 400 Hz with AVI-LV3 max. 10 A @ 400 Hz with AVI-LV3
<b>Aperture</b>	6 x 12 cm
<b>Dimensions</b>	53 x 65 x 50 cm
<b>Weight</b>	190 kg
<b>For generators</b>	<a href="#">AVI-LV3</a> , MIG0600MS, MIG0618SS
<b>Included</b>	connection cables



# ACCESSORIES

## SHUNTOE1

<b>Application</b>	calibration of WF2, WF3 short circuit current
<b>Impedance</b>	0.1 $\Omega$ $\pm$ 2 %
<b>Output</b>	100 mV/A
<b>Maximum setting AVI-LV3</b>	WF2: 1600 V, WF3: 1900 V
<b>Weight</b>	0.15 kg
<b>Dimensions</b>	12 x 2.5 x 2.5 cm
<b>Requires</b>	AVI-LV3, CN-BT7



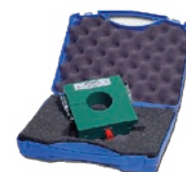
## V-PROBE-SI

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Type of probe</b>	differential (can measure CM as well)
<b>Input voltage</b>	max. 7 kV DC + peak, max. 2.5 kV r.m.s.
<b>Waveforms</b>	all AVI-LV3 waveforms and voltage test levels
<b>Bandwidth</b>	DC – 70 MHz (-3 dB)
<b>Accuracy</b>	$\pm$ 2 %
<b>Input impedance</b>	10 M $\Omega$    10 pF
<b>Attenuation ratio</b>	1:100 or 1:1000
<b>Power supply</b>	4 x AA batteries and/or mains adapter
<b>Weight</b>	1.5 kg (packed)
<b>Dimensions</b>	29 x 34 x 8 cm (packed)
<b>For generator</b>	AVI-LV3
<b>Included</b>	carrying case, mains adapter, AA batteries



## I-PROBE-MB-P1

<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Application</b>	measurement of SC current / clamp on probe
<b>Output impedance</b>	50 $\Omega$ (BNC connector)
<b>Input current</b>	max. 100 A r.m.s., max. 5 kA impulse
<b>Waveforms</b>	all AVI-LV3 current waveforms
<b>Bandwidth (-3 dB)</b>	5 Hz – 15 MHz
<b>Sensitivity</b>	0.1 V/A into 1 M $\Omega$
<b>Accuracy</b>	+ 1 / - 0 %
<b>Current time product</b>	0.5 As
<b>I/f</b>	3.5 A/Hz
<b>Usable rise time</b>	25 ns
<b>DSO input selection</b>	1 M $\Omega$ AC
<b>Weight</b>	1.68 kg
<b>Dimensions</b>	12 x 13 x 4 cm (inner diameter 5 cm)
<b>For generators</b>	AVI-LV3, MIG-OS-MB, other



<b>Included</b>	carrying case
<b>DN-LISN160-32</b>	
<b>Standards</b>	DO-160G S22, MIL-STD-461G CS117, other
<b>Application</b>	Line Impedance Stabilization Network (5 $\mu$ H)
<b>Inductance</b>	5 $\mu$ H per line (for both AC and DC lines)
<b>Capacitance</b>	10 $\mu$ F included, 33000 $\mu$ F included
	LISN is calibrated with capacitors connected
<b>Number of lines</b>	2 AC lines (L, N or L1, L2), 2 DC lines (+ / -)
<b>AC voltage max.</b>	L-N: 480 V @50/60 Hz, L-PE: 280 V @50/60 Hz
	L-N: 150 V @ 400 Hz, L-PE: 85 V @ 400 Hz
<b>AC current max.</b>	32 A
<b>DC voltage max.</b>	50 V
<b>DC current max.</b>	32 A
<b>EUT protection</b>	yes, at 275 V
<b>Weight</b>	13 kg
<b>Dimensions</b>	45 x 57 x 19 cm, 19" unit, 4 UH
<b>For generators</b>	<a href="#">AVI-LV3</a> , <a href="#">MIG0600MS</a> , <a href="#">MIG0618 SS</a> , <a href="#">MIG-OS-MB</a>
<b>Requirements</b>	for 3-phase EUTs, two pieces are required



### WARNING-LAMP

<b>Cable length</b>	5 m
<b>Dimensions</b>	diameter 7x cm x 25 cm
<b>Weight</b>	0.5 kg



### EMERGENCY-STOP

<b>Cable length</b>	5 m
<b>Dimensions</b>	8 cm x 8 cm x 10cm
<b>Weight</b>	0.3 kg



# SOFTWARE

## TEMA3000

<b>Suitable for generator</b>	AVI-LV3
<b>Type of license</b>	modular: TEMA3000 basic license (remote control) TEMA3000 REPORT (automatic test report) TEMA3000 DSO (DSO control, supports most current oscilloscopes on Ethernet) TEMA3000 LIBRARY (pre-programmed test levels according to standards)
<b>Operating system required</b>	Windows, latest
<b>Communication port</b>	ethernet
<b>Updates</b>	lifetime updates at no additional cost
<b>Latest version</b>	available on EMC PARTNER website

# Tradition meets Technology

Over 25 years devoted to combining  
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# Specific EMC test requirements ?

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<input type="checkbox"/> ABD0100.1.2	<input type="checkbox"/> IEC 60255-5	<input type="checkbox"/> IEC 61000-4-34	<input type="checkbox"/> IEC 62052-11	<input type="checkbox"/> MIL-STD-461 / CS117
<input type="checkbox"/> ABD0100.1.8.1	<input type="checkbox"/> IEC 60335-1	<input type="checkbox"/> IEC 61000-4-4	<input type="checkbox"/> ISO 10605	<input type="checkbox"/> MIL-STD-461 / CS118
<input type="checkbox"/> ANSI / IEEE 62.45	<input type="checkbox"/> IEC 60384-14	<input type="checkbox"/> IEC 61000-4-5	<input type="checkbox"/> ITU-T K.20	<input type="checkbox"/> MIL-STD-883
<input type="checkbox"/> ANSI C37.90	<input type="checkbox"/> IEC 60571	<input type="checkbox"/> IEC 61000-4-8	<input type="checkbox"/> ITU-T K.21	<input type="checkbox"/> NMI M6 Section A.219
<input type="checkbox"/> ANSI C62.41	<input type="checkbox"/> IEC 60664-1	<input type="checkbox"/> IEC 61000-4-9	<input type="checkbox"/> ITU-T K.22	<input type="checkbox"/> Renault 32-10-001/D
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<input type="checkbox"/> EN 50121-3-2	<input type="checkbox"/> IEC 61000-3-3	<input type="checkbox"/> IEC 61010-1	<input type="checkbox"/> JASO D 001-94	<input type="checkbox"/> RTCA DO-160 - Section 19
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<input type="checkbox"/> EUROCAE/ED-14	<input type="checkbox"/> IEC 61000-4-12	<input type="checkbox"/> IEC 61180-2	<input type="checkbox"/> MIL-DTL-23659D	<input type="checkbox"/> SAE J551-15
<input type="checkbox"/> FAA AC 20 -136	<input type="checkbox"/> IEC 61000-4-16	<input type="checkbox"/> IEC 61340-3-1	<input type="checkbox"/> MIL-STD-1512	<input type="checkbox"/> STANAG 4239
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<input type="checkbox"/> IEC 60255-22-1	<input type="checkbox"/> IEC 61000-4-28	<input type="checkbox"/> IEC 61730-1	<input type="checkbox"/> MIL-STD-461 / CS115	<input type="checkbox"/> VW TL 824-66

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## IMMUNITY TESTS

Transient Test Systems for all EMC tests on electronic equipment. ESD, EFT, surge, AC dips, AC magnetic field, surge magnetic field, common mode, damped oscillatory and DC dips. According to IEC and EN 61000-4-2, -4, -5, -8, -9, -10, -11, -12, -13, -14, -16, -18, -19, -29.



## LIGHTNING TESTS

Impulse test equipment and accessories for aircraft, military and telecom applications. Complete solutions for RTCA / DO-160 and EUROCAE / ED-14 for indirect lightning on aircraft systems, MIL-STD-461 tests CS106, CS115, CS116, CS117, CS118 and Telecom, ITU-T K.44 for impulse, power contact and power induction.



## COMPONENT TESTS

Impulse generators for testing varistors, gas discharge tubes (GDT), surge protective devices (SPDs), X / Y capacitors, circuit breakers, electricity meters, protection relays, insulation material, suppressor diodes, connectors, chokes, fuses, resistors, emc-gaskets, cables, etc.



## EMISSION MEASUREMENTS

Measurement of Harmonics and Flicker in 1-phase and 3-phase electrical and electronic products according to IEC / EN 61000-3-2 and 61000-3-3. HARCS Immunity software adds interharmonic tests, voltage variation.



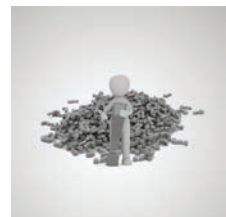
## SYSTEM AUTOMATION

A full range of accessories enhance the test systems. Test cabinets, test pistols, adapters and remote control software, simplify interfacing with the EUT. Programmable power supply unit, EMC hardened for frequencies from 16.7Hz to 400Hz. PS3-SOFT-EXT complies with IEC / EN 61000-4-14 and -4-28.



## SERVICE

Our commitment starts with a quality management system backing up our ISO 17025 accreditation. With the SCS number 146, EMC PARTNER provide accredited calibration and repairs. Our customer support team is at your service!



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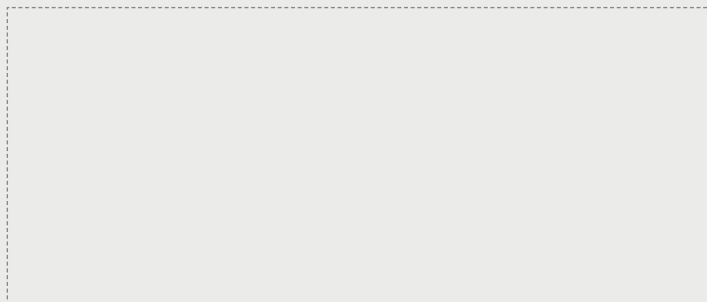


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