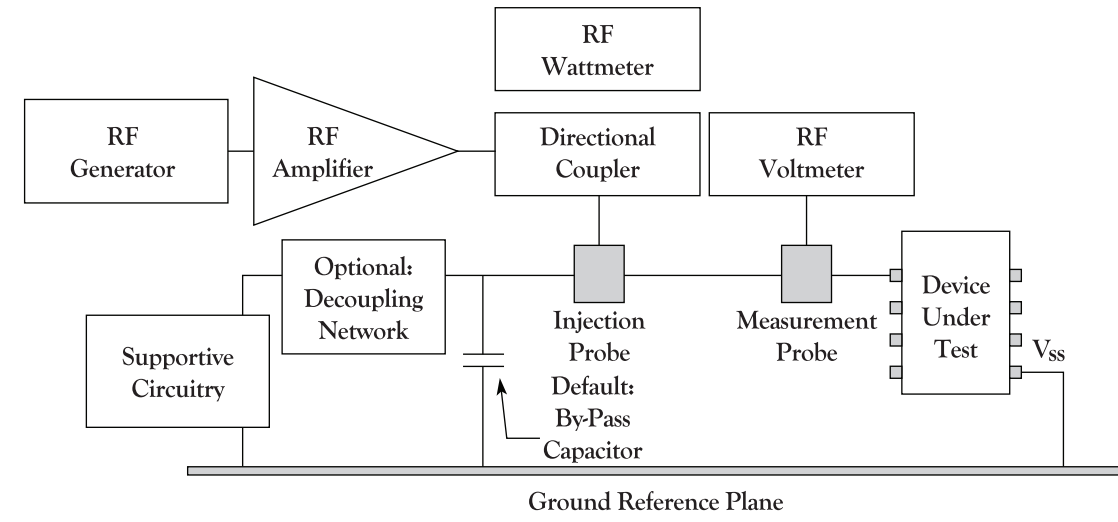


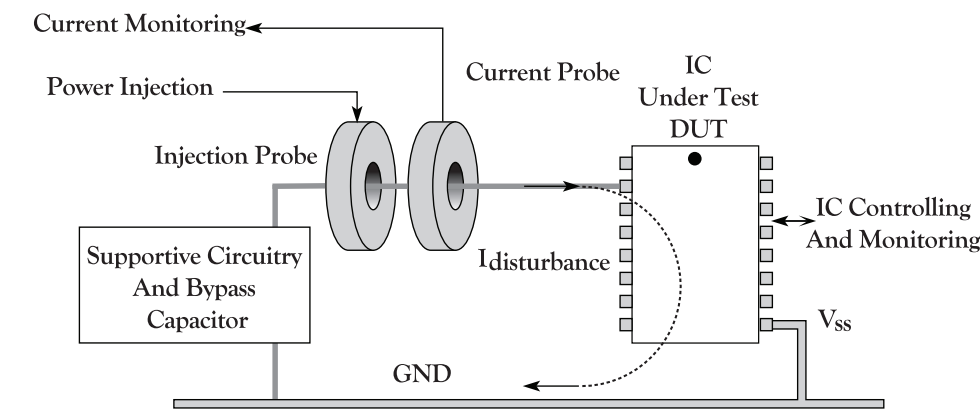
Integrated Circuit (IC) & Component EMC Testing

CONDUCTED IMMUNITY (CI) TESTING

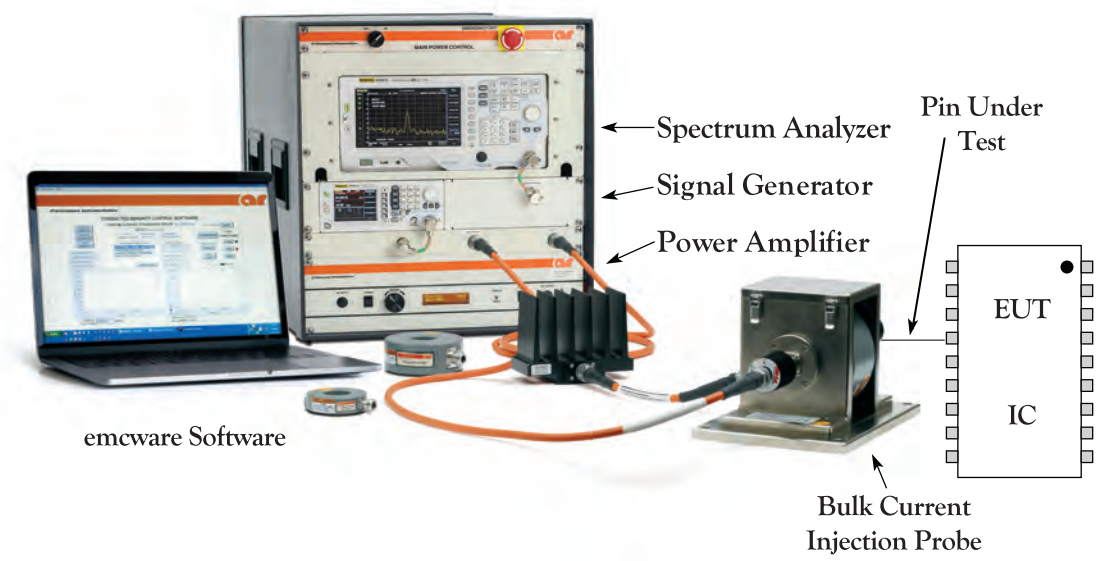
IEC 62132-3 General BCI Test Setup - System Configuration



IEC 62132-3 Bulk Current Injection Path Using AR CI System - Current Path



Bulk Current Injection (BCI) Testing AR CI System Test Setup

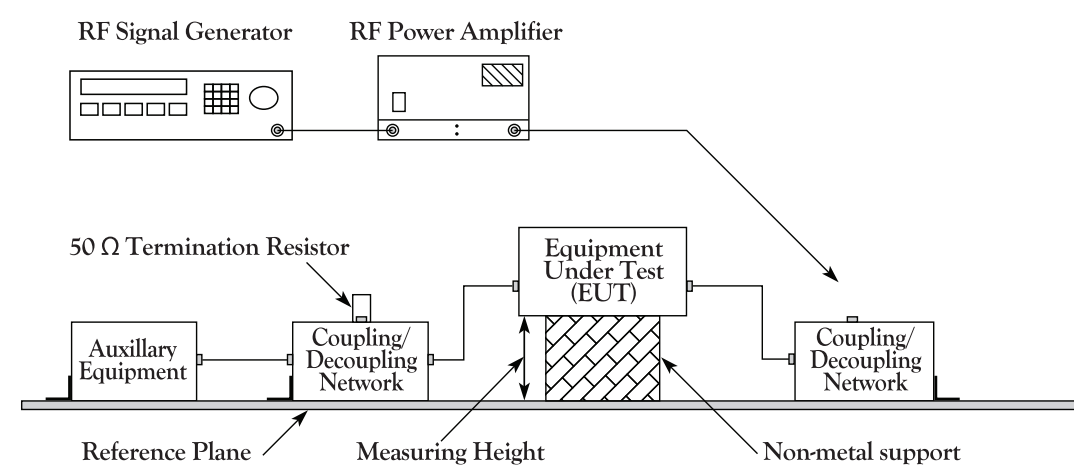


IEC 62132-3 BCI Frequency Steps And Test Severity Levels

Frequency Band	Maximum Frequency Step Size (Linear)	Frequency Step (Log)
10 kHz - 100 kHz	2 kHz	10%
100 kHz - 1 MHz	20 kHz	
1 MHz - 10 MHz	200 kHz	
10 MHz - 100 MHz	2 MHz	5%
100 MHz - 1 GHz	5 MHz	

Test Severity Levels	Current (CW Value) No Insertion Loss
I	50 mA
II	100 mA
III	200 mA
IV	300 mA
V	Customer Specific

IEC 62132-5 Workbench Faraday Cage Method Test Setup



The Workbench Faraday Cage Concept Is Similar To The Method Described In IEC 61000-46. Refer To ARI App Note #62A For More Information.

AR Products Capable Of Producing Wide Range Of IEC BCI Test Levels

Device Type	Application	Model	Calibration Fixture	Attenuators	Monitoring Probe
Bulk Current Injection	IEC ICs Testing	BI01000	CFM01000	AF06250, AF10250, AF20050	BP01000
Bulk Current Injection	IEC Commercial Testing	BI00250	CF00250	AF06250, AF10050, AF20050	BP00251 & BP00250
Bulk Current Injection	Automotive testing 1 MHz - 400 MHz	BI00401	CF00400	AF10050 & AF20050	BP00400
EM Clamp	IEC ICs Testing	EM10123 (100W max)	EM10123CF	AF06250, AF10050, AF20050	BP00250 & BP00251
EM Clamp	IEC Commercial Testing	EM10132 (100W max)	EM10132CF	AF06250, AF10050, AF20050	BP00250 & BP00251

Parts Of IEC 62132 Integrated Circuits EMC Standard

Part of IEC 62132	Standard Title	Test Coupling To	Frequency Range & Modulation	Test Type
1	General Conditions & Definitions	Integrated Circuits (ICs)	150 kHz - 1 GHz	NA
2	Transverse Electromagnetic (TEM) Cell	EUT &/Or Wiring Harness	150 kHz - 1 GHz 1kHz, 80% AM or 100% Pulse	RI
3	Bulk Current Injection (BCI)	EUT Pins & Wiring Harness	150 kHz - 1 GHz I disturbance = 10 mA min.	CI
4	Direct RF Power Injection (DPI)	EUT Pins	150 kHz - 1 GHz 1kHz, 80% AM	CI
5	Workbench Faraday Cage Method	EUT &/Or Wiring Harness	150 kHz - 1 GHz 1kHz, 80% AM	CI
8	IC Stripline Method	EUT	150 kHz - 3GHz CW, 1kHz, 80% AM And PM With 50% Duty Cycle & 1 kHz Rep. Rate	RI
9	Surface Scan Method	EUT	150 kHz - 6 GHz CW, 1kHz, 80% AM And PM With 50% Duty Cycle & 1 kHz Rep. Rate	RI

AR Product Line For IEC 62132 Integrated Chips EMC Testing

Type	Frequency Range	Model Number
25W Solid State Amplifier	10 kHz - 1000 MHz	25U1000
50W Solid State Amplifier	10 kHz - 1000 MHz	50U1000
BCI Test System	10 kHz - 1000 MHz	CI00402 Series
TK3000	10 kHz - 1000 MHz	BCI Test Accessory Kit
emcware	Comprehensive EMC Automation Test Software	

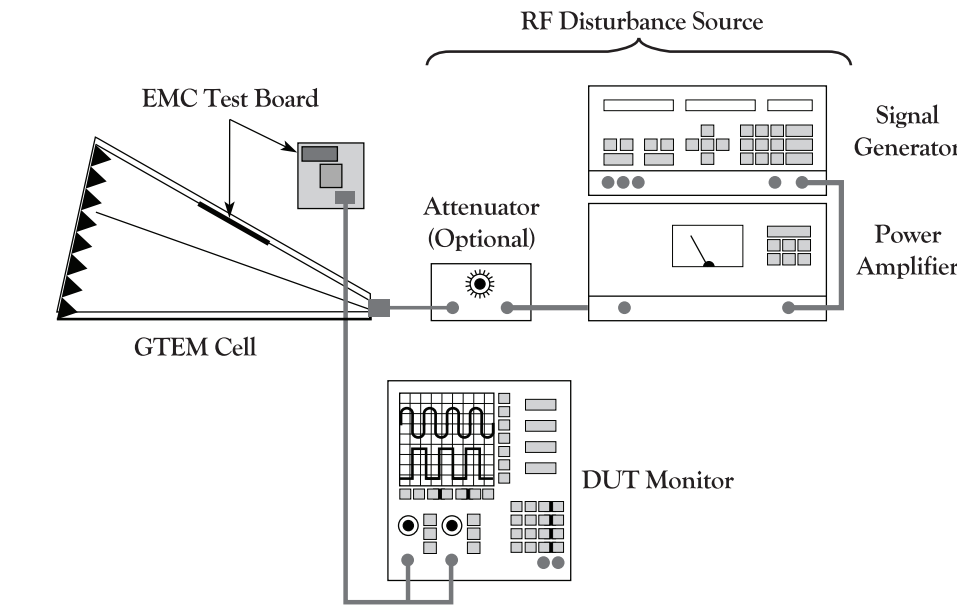
The Heart Of Any Electronic Device



RADIATED IMMUNITY (RI) TESTING

AR TEM and GTEM Cell Radiated Susceptibility Test Setup

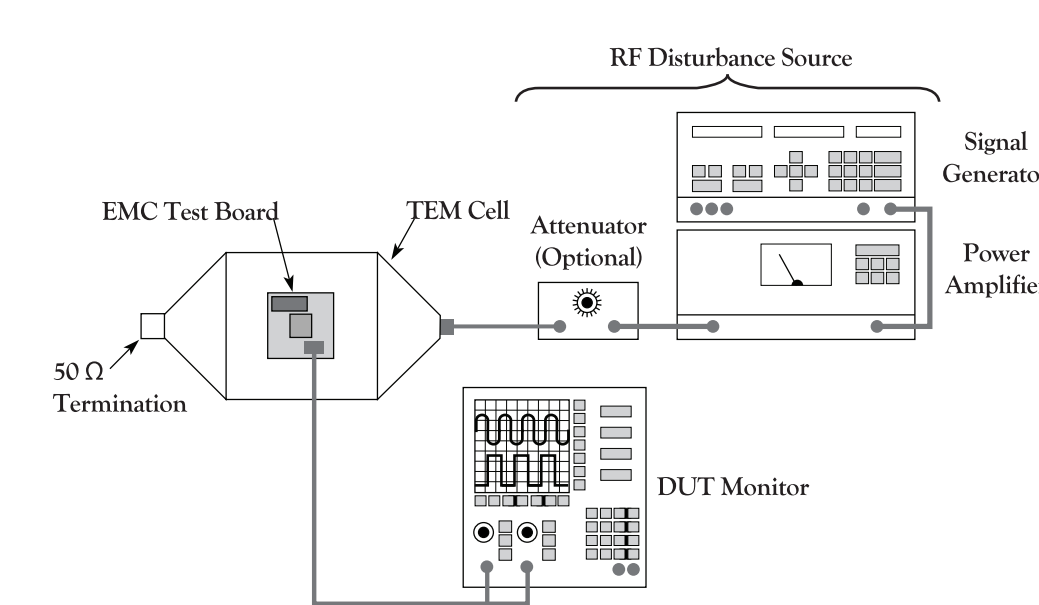
IEC 62132-2 General GTEM Cell Test Setup



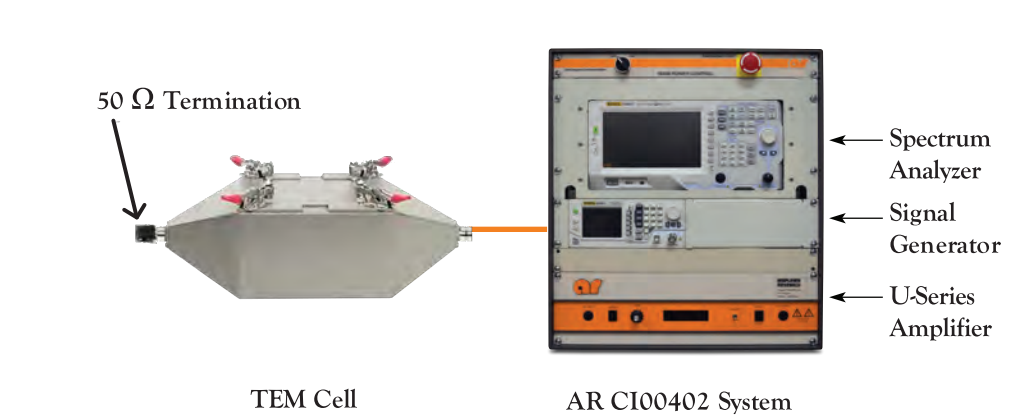
AR GTEM Cell RI Test Setup



IEC 62132-2 General TEM Cell Test Setup

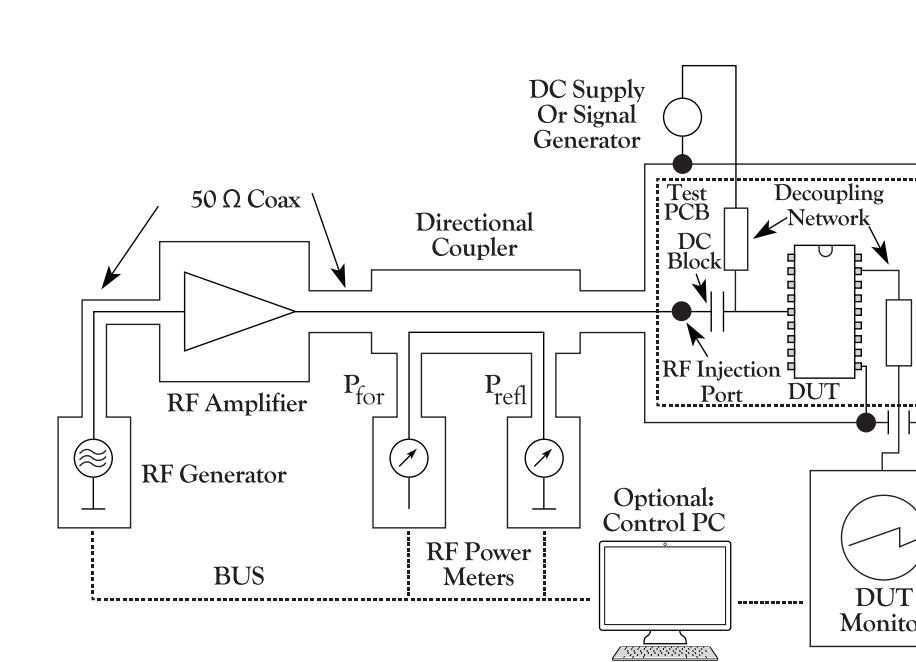


AR TEM Cell RI Test Setup

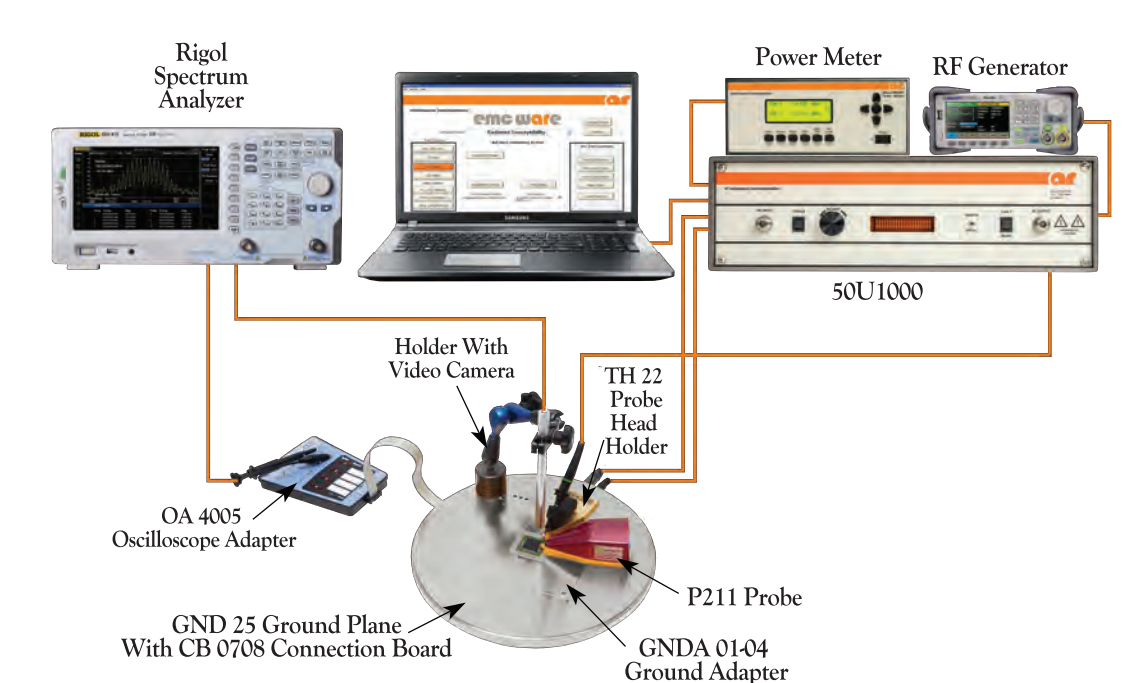


Direct Power Injection (DPI) Test Setup

IEC 62132-4 General DPI Cell Test Setup



AR IEC 62132-4 DPI Cell Test Setup



Note: All the general test set-ups are taken from IEC 62132, 2016.

See Application note #76 for more information on Integrated Circuit and Component EMC Testing.