



# MAXWELLON ER300/2000/3600

1kHz~300MHz/ 2GHz/ 3.6GHz

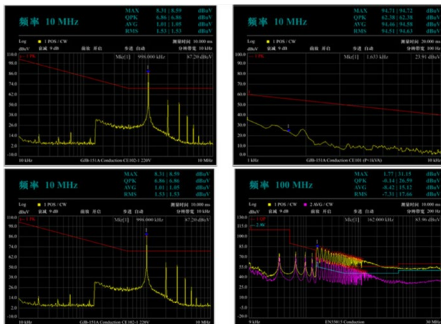
EMI Receiver

2023

The ER series EMI test receivers comply with CISPR 16-1-1 standard, integrated CISPR-AVG, CISPR-RMS, QPK detectors, and electromagnetic interference measurement. According to CISPR, EN, FCC and MIL standards, which is suitable for EMI testing in home appliances, lighting, automotive electronics, medical, and other industries. Combined with ETR PC measurement software and a wealth of test options, accurate automated testing is possible. The whole system is equipped with a spectrum analysis module and a tracking signal generator to meet the testing needs of users in different fields.

## Key Feature

- Frequency range: 1kHz~300MHz/2GHz/3.6GHz
- Resolution bandwidth: 1Hz~3MHz (-3dB), 200Hz/9kHz/120kHz/1MHz (-6dB)
- Complies with CISPR 16-1-1 standards, including CISPR AVG, CISPR RMS, QPK detectors
- EMI receiver and spectrum analyzer in one
- Reliable and stable measurement with all digital detectors
- Dual RF input protection ensures measurement safety
- Rich testing options to meet different applications and measurements
- Support ETR measurement and analysis software

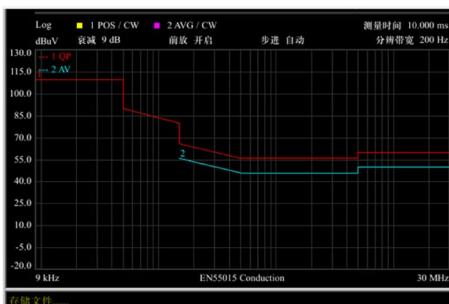
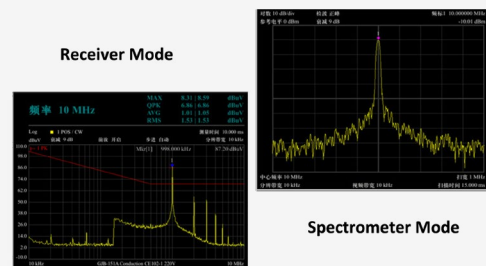


### Embedded Multiple EMI Measurement Standards

Embedded with various EMI measurement standards such as GB/GJB/EN/CISPR/FCC, supporting custom standards.

### EMI Receiver and Spectrum Analyzer In One

Dual system mode: EMI receiver and spectrum analyzer modes can be freely switched for measurement.

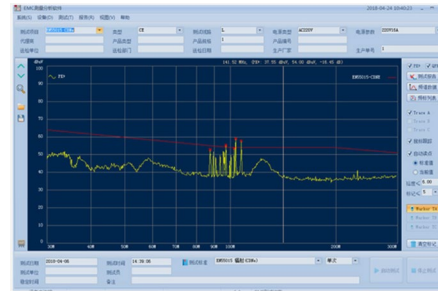


### Multiple Detection Methods

Dual system mode: EMI receiver and spectrum analyzer modes can be freely switched for measurement.

## EMC Automated Testing System

Editable EMC measurement analysis measurement software and remote control interface, capable of establishing an EMC automatic testing system and outputting test reports.



### Built in LISN and CM/DM separator

The output ports of LISN and CM/DM separator can be switched to switch outputs.

## Specifications

EMI Receiving Mode		
Frequency Range	ER300	1kHz~300MHz
	ER2000	1kHz~2GHz
	ER3600	1kHz~3.6GHz
Reading accuracy	± (Frequency standard reading × Frequency reference accuracy+half of the last displayed unit)	
Amplitude uncertainty(20 C ~30 C )	Comprehensive amplitude accuracy (90%)	±2.0dB
Resolution bandwidth (-6dB)	Resolution bandwidth range	200Hz/9kHz/120kHz/1MHz
	Resolution bandwidth accuracy	<10%
Attenuator	Attenuator range	0~39dB, 3dB stepping
	Attenuator uncertainty	±1.0dB
Detector	Positive peak, negative peak, quasi peak, average, RMS	
Scan Time	100us~100s	
Scan Points	301~1001	
Number Of Traces	3 (parallel detection)	
Frequency Band List	10	
Frequency Response	± 2.0dB	
Input Port Standing Wave	50MHz~1GHz	≤2.0
Spectrum Analysis Mode		
Frequency Range	1kHz~3.6GHz	
Reading Accuracy	± (Frequency standard reading × Frequency reference accuracy+1% × Sweep width+10% × RBW+0.5 × [Sweep width/ (scan point -1)]+1Hz)	
Internal Benchmark (10MHz)	Aging rate	1ppm/ year
	Temperature drift	<0.5ppm(15 C ~35 C )
SSB (f=500MHz)	Frequency offset 30kHz	-90dBc/Hz
	Frequency offset 1MHz	-110dBc/Hz

Spectrum Analysis Mode				
Display Average Noise Level	Channel	frequency	Pre Off	Pre On
	Frequency Conversion Channel	100kHz~1MHz	$\leq -100\text{dBm}-30^* (f/100\text{kHz})\text{dB}$	$\leq -120\text{dBm}-30^* (f/100\text{kHz})\text{dB}$
		1MHz~10MHz	$\leq -130\text{dBm}$	$\leq -150\text{dBm}$
		10MHz~1GHz	$\leq -135\text{dBm}$	$\leq -155\text{dBm}$
		1GHz~3.6GHz	$\leq -140\text{dBm}$	$\leq -148\text{dBm}$
	Low Frequency Channel	5kHz~10kHz	/	$\leq -110\text{dBm}$
10kHz~10MHz		/	$\leq -125\text{dBm}$	
Amplitude uncertainty(20°C ~30°C )	Comprehensive amplitude accuracy (90%)		$\pm 1.8\text{dB}$	
Resolution Bandwidth (-3db)	Resolution bandwidth range		1Hz~3MHz, continuous stepping	
	Resolution bandwidth conversion uncertainty		1Hz $\leq$ RBW $\leq$ 500kHz: $\pm 0.6\text{dB}$ RBW>500kHz: $\pm 1.0\text{dB}$	
	Resolution bandwidth accuracy		<10%	
Frequency Response	5kHz~200kHz		$\pm 1.8\text{dB}$	
	200kHz~3.6GHz		$\pm 1.5\text{dB}$	
Tracking Source	frequency range		100kHz~1.5GHz	
	output power		-30dBm~0dBm	
	Flatness output		$\pm 3\text{dB}$	
General				
Display	TFT-LCD, 8.4 inch 800×600			
Communication Interface	LAN			
Working Temperature	0°C ~40°C			
Storage Temperature	-30°C ~+70°C			
Weight	7.5kg			
Size (length × wide × High)	400mm×280mm×190mm			

## Ordering Information

Configure	Describe	Order No.
Main Unit	EMI Receiver (1kHz~300MHz)	ER300
	EMI Receiver (1kHz~2GHz)	ER2000
	EMI Receiver (1kHz~3.6GHz)	ER3600
Standard	CD (user manual, programming manual)	/
	Power cord (220VAC)	/
	N/SMA-JK connector	/
	N/BNC-JK connector	/
	Built-in tracking source (100kHz~1.5GHz)	/
Option	Line impedance stabilization network (LISN)	LSN016
	Coupling decoupling network-M3	CDN016
	Pulse limiter	PLA030
	RF switch	RFS003
	Current injection probe	PRBI-400
	Current detection probe	PRB330
	Probe calibration fixture	CLA001
EMC testing software	BL.EMC.ETR	



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