

# **3250-Series**

EMI Measurement Application (Pre-Compliance)

EMI 관련 모든 상업용 국제 규격, CISPR, KN, EN, FCC 등에 부합하고 모든 전기/전자 제품의 개발 과정에서 EMI 특성을 Test하고 디버깅을 수행함으로써 정식 인증 시의 문제점을 사전에 파악, 해결하여 개발비용 및 기간을 단축 시킬 수 있습니다.



- · High accuracy and reliability
- Powerful RF performance, phase noise -115 dBc/Hz, DANL -145 dBm/Hz
- Standard 30 MHz I/Q demodulation bandwidth
- Remote control via LAN, GPIB, RS-232C
- S/W extension based on Windows® XP OS
- 7" wide touch panel display
- Portability based on light and compact design
- · Removable hard disk
- Optional battery
- Choice of 3 GHz or 8 GHz tracking generator

The NEW 3250 Series has been developed to provide market leading performance at a low cost. The innovative compact design 3250 spectrum analyzer employs the latest digital processing and RF technology, providing accomplished accuracy, stability and measurement speed.

To support the constantly evolving wireless communication market, the 3250 incorporates a standard 30 MHz bandwidth digitizer and basic digital modulation analysis S/W. The instrument has been optimized for various mobile and

wireless communication measurements such as GSM/EDGE, UMTS. WiMAX and WiBRO.

With its powerful RF performance and advanced applications the 3250 Series is ideally suited for RF development, design analysis and testing. All models have a Windows® XP operating system, remote control capabilities via LAN, GPIB and RS-232C as well as a 7" touch panel screen, ensuring ease of operation and exceptional connectivity.

## Innovational Spectrum Analyzer with Fully Digital Processing

Optimize your measurement through the accuracy, stability, measurement speed, and portability based on the high RF performance and digital technology of the 3250 Series.

#### **Various Applications**

Various applications optimized for the wireless and mobile communication development and RF measurement.

#### **Customized Standard Functions**

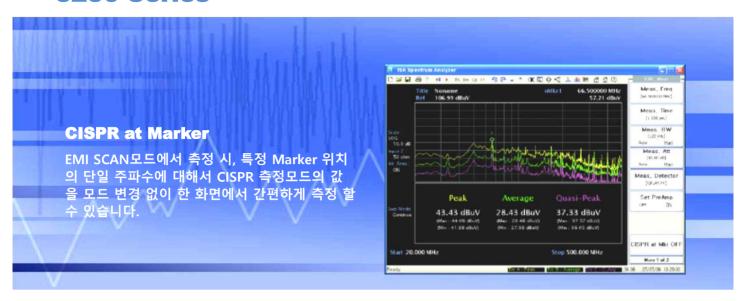
Useful customized measurement functions and tools for various customer needs.

#### **Interface and Control**

Various interfaces such as LAN, GPIB, RS-232C based on Windows®XP. Its powerful Web-server functions enable the users to remotely access and control the equipment anytime anywhere.

3251	1 kHz to 3 GHz			
3252		1 kHz to 8 GHz		
3253			1 kHz to 13.2 GHz	
3254				1 kHz to 26.5 GHz

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## **EMI Compensation**

EMI Compensation은 각종 보상 파라미터를 적용하기 위한 기능으로 내장 S/W에 편집할 수 있는 기능과 윈도우 기본 텍스트 편집기를 사용할 수 있습니다.

[ Kind of Files ] ANT: Antenna Correction.

CBL: Cable Correction.
OTH: Others Correction.
USR: User Correction.
EMT: Limit files for EMI.
ETS: Status file for EMI.



## EMI Trace 제공

EMI SCAN모드에서는 동시에 3가지의 다른 종류의 Detector로 Scan이 가능합니다.

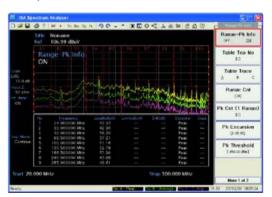
Trace A: Peak trace data.

Trace B: RMS or Average trace data.

Trace C: QP, CISPR-Average, LOG Average.

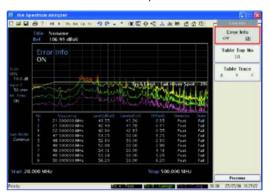
### **Auto Peak Search for Sub Range**

EMI SCAN 결과물에 대한 Peak 분석기능으로 유저가 미리 정의한 Sub-Range에 대해 자동으로 Peak를 찾아 이를 List up 하여 엑셀 CSV 파일로 저장이 가능합니다.



#### **Error Information**

EMI SCAN모드에서 측정 시, 해당 Limit Line 과 비교하 여 Over되는 Fail지점을 List up하여 보여줍니다.



## 3250-Series

## **Specifications**

#### **FREQUENCY**

Frequency range

AC coupled 1kHz~3 GHz/8GHz/13.2GHz/26.5 GHz

Resolution 1 Hz

Frequency counter

Resolution 1 Hz / 10 Hz / 100 Hz / 1 kHz

Sensitivity -45dBm@13.2GHz >f>2MHz, span <3MHz

Frequency span

Range 0Hz, 10Hz~3GHz/6.2GHz/13.2GHz/26.5 GHz

Resolution 1Hz Accuracy ±1%

RRW

3dB bandwidths 30Hz to 5MHz (1-2-3-5 Sequence)

Bandwidth accuracy ± 3% (@ 500 Hz~500 kHz Filter)

± 10% (@ 1MHz~5 MHz Filter)

**VBW** 

3dB bandwidths 1Hz to 3MHz, none (1-2-3-5 sequence)

#### **AMPLITUDE**

Maximum input level

DC (AC coupled) ± 50 VDC (Option)

CW RF power + 30 dBm

Peak Power +50dBm, 5usec pulse width; 0.5% duty cycle

Preamp on +20 dBm

RF input attenuator

Range 0 to 55 dB Steps 5dB

Switching accuracy

±0.5 dB @ 100 MHz (ISA-30, ISA-80)

±0.5 dB @ < 13.2 GHz (ISA-132, ISA-265)

#### INPUTS AND OUTPUTS

RF input

Type Front N female,  $50\Omega$  APC2.92mm,  $50\Omega$  (26.5GHz)

VSWR ≥10 dB input attenuation

< 1.5 nominal @10 MHz to 3 GHz

< 1.8 nominal @ 3 GHz to 13.2 GHz

Type Rear BNC female, R i =  $50 \Omega$ 

Frequency 21.4 MHz

Bandwidth 16 MHz Max, different as Prefilter

Level +2 dBm nominal, at top of screen

GPIB Type Rear IEEE 488.2, 24 - pin female

Command set SCPI 1997.0

Serial interface Rear RS-232 C (COM), 9 pinD SUB female

LAN interface Rear 10/100/000 Base T, Connector RJ45

USB Front/Rear USB 2.0, Front: 2 EA, Rear: 2 EA

Monitor output (VGA) Rear 15-pin mini D-SUB

Cal. Out Frequency Front 40 MHz

Level - 20 dBm + 1.0

#### **GENERAL SPECIFICATIONS**

Display Size 7" Wide color TFT LCD (Touch Screen)

Resolution 800 x 480 pixels

Mass memory Hard Disk, Removable, 80 G

**Environmental Conditions** 

MIL - PRF - 28800 F, Class 3

Temperature operating

Operating 0°C to + 50°C

Permissible 0°C to + 55°C

**EMC** 

EN 61326-1: 2006, EN 55022: 2006

EN 55024: 1998 + A1 + A2

EN 61000 - 3 - 2: 2000 + A2

EN 61000 - 3 - 3 : 2000 + A1 + A2

Safety EN 61010 - 1: 2001 (2nd Edition)

Power supply

Steady state voltage 100 VAC to 240 VAC, 50 / 60 Hz

Power consumption 120 Watt Max (ISA - 265)

Dimensions (WxHxD) [mm]

373(W) x 194(H) x 401(D) without handles and down feet

384 (W) x 203 (H) x 437 (D) with handles and down feet

Weight

Model 3 G / 8 G / 13.2 G / 26.5 G

[kg] 11.0 / 12.8 / 13.0 / 13.4

Recommended calibration interval 1 - year

Standard Warranty 2 - year

#### **Digitizer Specification**

Maximum Analysis Bandwidth 30MHz

ADC Resolution 14 bits

Dynamic Range 85 dB

Residual FM < 1% (nominal)

Capture Memory 128 Mbytes (32 Msamples)

#### **OPTION**

Tracking generator

Frequency 9 KHz to 3 GHz

Frequency Resolution [dB] 1 Hz

Output level [dBm] .30 dBm to 0 dBm

Output level resolution 0.1 dB

Absolute level accuracy ±2.0 dB

Frequency Flatness [dB]

±4.0 @ -10dBm (9kHz ~ 100KHz),

Before Normalization

±2.5 @ -10dBm (100kHz ~ 3GHz), Before Normalization

 $\pm 1.0$  @ -10dBm (9kHz ~ 3GHz), After Normalization

VSWR 1.5 @ 0dBm Output Level

<sup>-</sup> 본 제품은 성능의 향상을 위하여 예고 없이 변경 될 수 있습니다.