

Extended Frequency Measurement Solution

V-band (50 ~ 75 GHz) Evaluation

Signal Analyzer MS2830A/MS2840A/MS2850A

External Mixer Connection Function MX284090A

Eravant V-Band Full Waveguide Band Down-Converter

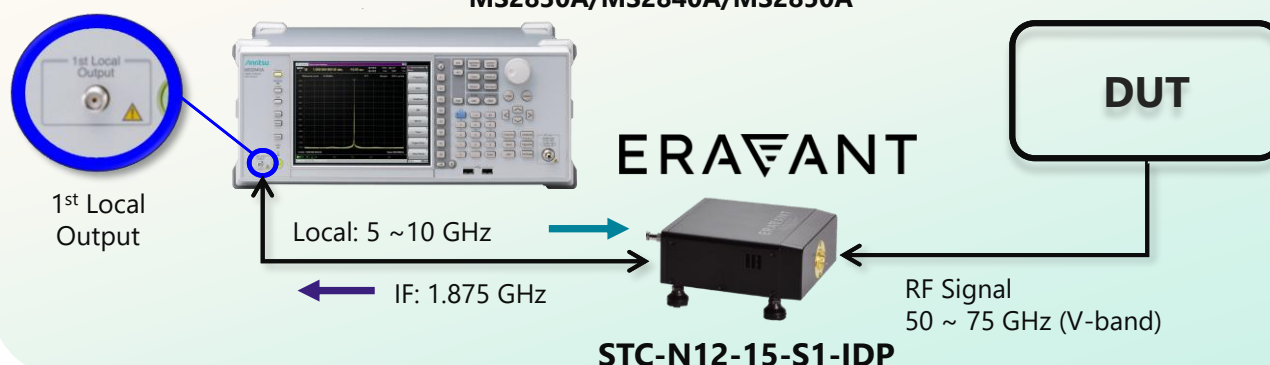
STC-N12-15-S1-IDP

The External Mixer Connection Function MX284090A is a software option supporting our company's recommended external mixers. Installing this software in our Signal Analyzers MS2830A/MS2840A/MS2850A and connecting to our recommended external mixer extends the measurable frequency range. This note explains the configuration and features for V-band evaluation when the MX284090A is installed.

■ Easy Test Setup Using LO/IF Coaxial Cable Connections

● V-band Test Setup

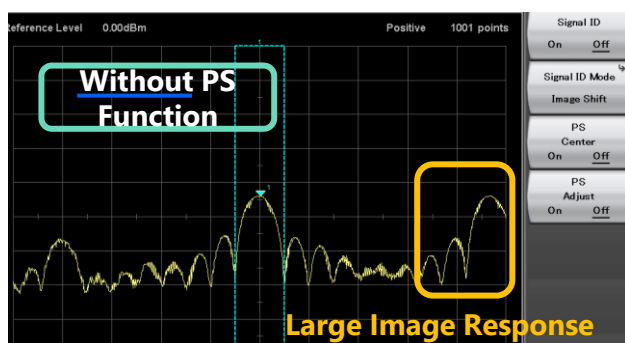
Signal Analyzer
MS2830A/MS2840A/MS2850A



■ High IF and Image-Free Response Measurements up to 7.5 GHz Bandwidth with PS Function*

Image-response-free measurement is supported across a wide bandwidth (up to 7.5 GHz) using the Signal Analyzer MS2830A/MS2840A/MS2850A high IF (1.875 GHz) and Anritsu's proprietary PS (Polarity Swap) function.* Time-varying signals can also be measured to obtain accurate spectrum information.

*Anritsu patent



■ USB Memory with Mixer Conversion Loss Data

The USB memory bundled with the external mixer stores mixer loss conversion data that is reflected in the measured data when loading the USB memory into the MS2830A/MS2840A/MS2850A.



■ Key Functions and Features of Each Spectrum Analyzer and Mixer

Signal Analyzers

MS2830A Microwave (MS2830A-044/045) 9 kHz ~ 26.5 GHz/43 GHz

Spectrum Analyzer + Signal Analyzer for Manufacturing/Maintaining mmWave Communication Equipment

- Dynamic range: 159 dB@25 GHz* (TOI – DANL)
- Phase noise: –115 dBc/Hz@500 MHz, 100 kHz offset



MS2840A (MS2840A-044/046) 9 kHz ~ 26.5 GHz/44.5 GHz

Excellent Phase Noise Performance Using New Synthesizer Design

- Phase noise: –123 dBc/Hz@1 GHz, 10 kHz offset
- Resolution bandwidth: 31.25 MHz (standard), 125 MHz max (option)



MS2850A (MS2850A-047/046) 9 kHz ~ 32 GHz/44.5 GHz

Wideband Signal Analysis Using Excellent Dynamic Range and Flatness

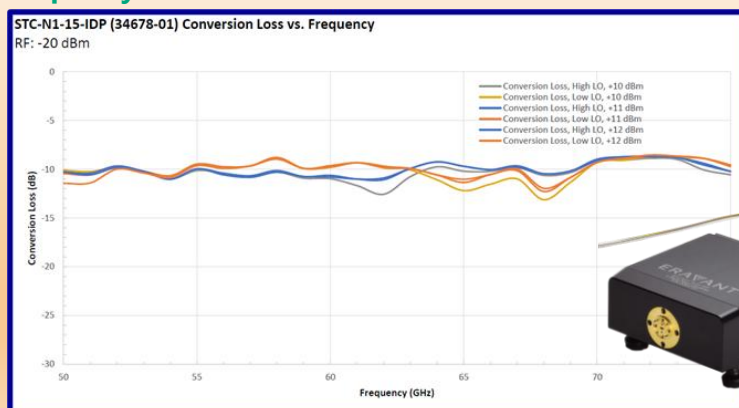
- Superior flatness: ±1.2 dB amplitude flatness (nominal); 5°p-p phase flatness (nominal)
- Wide dynamic range: 140 dB min. @28 GHz
- Resolution bandwidth: 255 MHz (standard), 510 MHz (option), 1 GHz (option)



Eravant STC-N12-15-S1-IDP

Extends Extends Spectrum Analyzer Test Frequency to 50 ~ 75 GHz.

- RF Input Frequency: 50 ~ 75 GHz
- IF Output: 1.875 GHz (typ.)
- LO Input Frequency: 6.25 ~ 9.38 GHz
- LO Power: +10 to +12 dBm
- Conversion Loss: 12 dB (typ.)
- RF Input Power Damage Level: +5 dBm (max.)



Ordering Information

Model	Name	Remarks
[Anritsu]		
MS2830A MS2830A-044 MS2830A-045	Signal Analyzer 26.5 GHz Signal Analyzer 43 GHz Signal Analyzer	Main unit Choose frequency upper limit. Select one of Opt-044 or -045.
MS2840A MS2840A-044 MS2840A-046	Signal Analyzer 26.5 GHz Signal Analyzer 44.5 GHz Signal Analyzer	Main unit Choose frequency upper limit. Select one of Opt-044 or -046.
MS2850A MS2850A-047 MS2850A-046	Signal Analyzer 32 GHz Signal Analyzer 44.5 GHz Signal Analyzer	Main unit Choose frequency upper limit. Select one of Opt-047 or -046.
MX284090A	External Mixer Connection Function (7.5 GHz wideband image-free response)	Required
J1692B	Coaxial Cord, 1 m	SMA-P • SUCOFLEX126E • SMA-P, DC ~ 18 GHz, 50Ω
[Eravant]		
STC-N12-15-S1-IDP	V-Band Full Waveguide Band Down-Converter	Recommended external mixer Frequency range: 50 ~ 75 GHz