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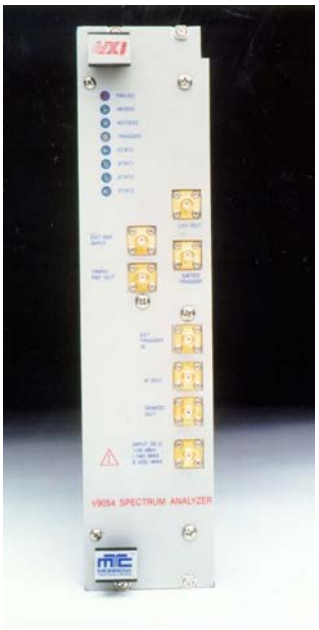
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Find the *Morrow Technologies V9054* at our website: ***Click HERE***

1.6 GHz VXI SPECTRUM ANALYZER

MORROW TECHNOLOGIES Model 9054



- **100 kHz to 8.5 GHz**
- **VISA Plug & Play**
- **Fully Synthesized**
- **Frequency Hopping Sweeps**
- **Low Phase Noise**
- **GUI Provided**
- **"C" Programming Libraries**

The Model V9054 VXI Spectrum Analyzer incorporates the design features and accuracy of other Morrow Technologies spectrum analyzers. The V9054 is a VXI message based instrument housed in a "C" size dual width module. The instrument can be controlled with the Windows based graphical user interface, which is included. Or, the user may design custom interfaces, using any of the available programming libraries.

VERIFY IF A SIGNAL MEETS SPECIFICATION
The V9054 provides a complete overlay drawing capability. Overlays serve as handy reference lines on the display, that clearly informs you if a measured signal is within specification. There is no limit to the number of overlays that can be generated. For example, overlays can be made that conform to FCC specifications for EMI emission testing so compliance of a component or product can be verified.

AUTOMATE TEST PROCEDURES
This optional feature stores test sequences that can be recalled for later use. Each sequence can instruct the V9054 to send the test results to a printer or to a disk file for other production test programs or report generators to use. In addition, software libraries are available for LabWindows™, LabVIEW™ and "C" for those customers who would prefer to write custom software for their own special or unique measurement application.

MARKERS SIMPLIFY MEASUREMENT
Independent point markers simultaneously provide the absolute amplitude and frequency values of two points. The standard software also provides a constant display of the delta values of these two points.

FREQUENCY ACCURACY TO 0.5 PPM
In the V9054, swept frequency accuracy is accomplished by means of fully synthesized digital tuning which locks the means of fully synthesized digital tuning which locks the synthesizer to the reference oscillator at each point in a sweep. Since the instrument sweeps by making very small steps, every frequency point that the instrument displays is as accurate as the $5x10^{-7}$ reference oscillator. An optional $5x10^{-8}$ reference is available for more exacting applications. DSP technology is utilized to process the 3rd. I.F. and demod signals.

STORED & MULTIPLE TRACES
Four display traces can be configured to show the input signal along with any combination of stored traces and calculated traces, such as minimum and maximum specified values.

UNIQUE SWEEP CAPABILITY
Since the V9054 Synthesized L.O. is digitally tuned, the precise number of steps and the span between steps is fully controllable with a resolution of 2 Hz across the entire spectrum. This allows linear, logarithmic, reverse, zero span or other types of sweeps with high precision and repeatability.

MORROW TECHNOLOGIES

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1.6 GHz VXI SPECTRUM ANALYZER

MORROW TECHNOLOGIES Model 9054

FREQUENCY

Frequency Range:
100 kHz - 1.6 GHz
Readout Accuracy:
± (C. F. x 5x10-7 + RBW Accuracy +1025 Hz)
(start, stop, center, marker)
Option 002: ± (C. F. x 5x10-8 + RBW Accuracy + 103 Hz)
Readout Resolution: 2 Hz
Ref. Frequency Temperature Stability: 5x10-7
Option 002: 5x10-8
Ref. Frequency Aging: ±1 x 10-6
Option 002: ± 0.2 PPM
Frequency Stability (Residual FM):
< 100 Hz P-P in 100 mS (3 kHz RBW)
Frequency Stability Short Term:
2 x 10-9 per 100 mS.
Option 002: 3 x 10-10 per 100 mS
Phase Noise: -81 to -90 dBc/Hz @ > 30 kHz Offset typ.
Frequency Span Accuracy:
± (Stop Frequency x 5x10-7 + RBW Accy + 1025 Hz).
Option 002: ± (Stop Frequency x 5x10-8 + RBW Accy + 103 Hz)
Resolution Bandwidth Range: 300 Hz - 3 MHz
RBW Accuracy: 20% of RBW except 300 Hz: ±100 Hz
RBW Selectivity 60 dB / 3 dB: 15:1, 4 Section Synchronous Filter
Video Bandwidth Range: 3 Hz – 3 MHz
Points per Sweep: Typically 350 to 10,000
Directed Search Mode:
Sweep with frequency hop table supplied by user

TIME RELATED

Synthesizer Step Time: 150 µS
Sweep Time:
VBW > RBW: (3 x Span / RBW) x (1800 / RBW + 0.150) mS
VBW < RBW: (3 x Span / RBW) x (750 / VBW + 0.150) mS
Sweep Time (zero span time display):
samples x 1 µS
Sweep Time Accuracy:
Sweep Time x Reference Accuracy
Marker Time Meas. Accuracy:
Sweep Time x Reference Accuracy
Delta Marker Time Meas. Accuracy:
Sweep Time x Reference Accuracy
Sweep Trigger Modes:
Single, Continuous, External, Video Level
Digitizing Rate:
1x10-6 Samples/sec. (Max) w/ 50 MHz sample & hold

GENERAL

Power Requirement (Maximum):
6.0A @ +5V; 0.4A @ - 5.2V; 1.5A @ + 12V
1.0A @ + 24V; 0.5A @ -24V (OXCO option only)
Size: C-size 2 module width
Weight: 9 lbs (19.8 kg)
Display: VGA Color with suitably equipped system

AMPLITUDE

Reference Level Range: -120 dBm to +20 dBm
Max. Safe Input Power (CW): +20 dBm
CRT Display Range (LOG): 1 to 10 dB / div
Absolute Level Accuracy: < ±0.5 dB
(-20 dBm input, 100 MHz; -20 dBm reference;
300 Hz RBW, 300 Hz VBW)
Frequency Response accuracy (ref. to Absolute Level Point):
±2.0 dBm
Log Maximum Cumulative Error:
±1.5 dB (0 to -70 dB from reference level)
RBW Switching Uncertainty: ±0.5 dB
Input Attenuator Range:
0 to 60 dB in 1 dB steps
Dynamic Range/ Compression to Noise:
110 dB @ 300 Hz RBW
Dynamic Range/ Signal to 3rd order Intermod:
>80 dB @ 300 Hz RBW
Dynamic Range Viewable On Screen: 80 dB
Residual Responses:
< -90 dBm (>2 MHz, 300 Hz RBW, 3 Hz VBW,
0 dB attenuation, input terminated)
3rd Order Intermodulation Distortion:
< -70 dBc for two - 30 dBm signals @ mixer
3rd Order Intercept: +5 dBm
Gain Compression (1 dB):
@Mixer Level = -10 dBm
Displayed Avg. Noise Level:
< -120 dBm (>2 MHz, 300 Hz RBW, 3 Hz VBW,
0 dB attenuation, input terminated)

EXTERNAL INPUT

RF Input: 50 W, SMA female
VSWR: 1.5:1 typ. (< 1.5 GHz, > 10 dB input attenuation)
L.O. Emission: < 80 dBm (10 dB input attenuation)
Ext. Reference Input Frequency: 10 MHz
External Trigger Input: TTL

EXTERNAL OUTPUT

Internal Reference out: 10 MHz @ 0 dBm
1st L.O. Output Level: +6 dBm typ.
Video Output: 0 to +1 Volt Full Scale
3rd I.F. Output: 10.7 MHz @ 0 dBm typ.

ENVIRONMENTAL

Operating Temperature: 0 - 50 °C (chassis)

AVAILABLE OPTIONS

V9054-PRE	Preamp, provides –130 dBm input sensitivity
V9054-TBS	5 x 10-8 Time Base Stability
V9054-DOP	Digitized 3rd I.F. Output
V9054-TST	Test sequencing of pre-recorded keystrokes
V9054-LIB	C Programming Library
V9054-FRC	RF Counter/Power Meter. Saves equipment rack or chassis space

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