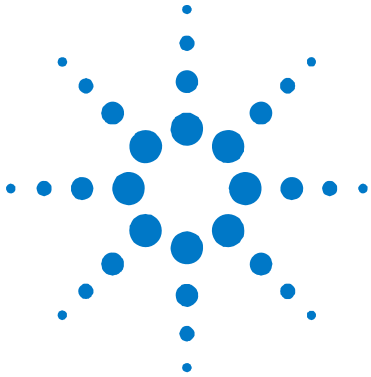

Agilent V2895A MIMO Synchronization Unit

Specifications

Agilent Technologies

Notices

Manual Part Number

V2895-90002

Edition

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Agilent Technologies, Inc.

Sales and Technical Support

To contact Agilent for sales and technical support, refer to the "support" links on the following Agilent web resources:

- www.agilent.com/find/V2895A (product-specific information and support)
- www.agilent.com/find/assist (worldwide contact information for repair and service)

Information on preventing damage to your Agilent equipment can be found at www.agilent.com/find/tips.

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Safety Notices

The following safety precautions should be

CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

Specification notes

Specifications (warranted performance)

Specifications describe the instrument's warranted performance. All units are warranted to meet performance specifications under the following conditions:

- Ambient operating temperature of 18°C to 28°C, unless otherwise noted.
- After specified warm-up time of 30 minutes and self calibration at ambient temperature.

Note: All items are specifications unless otherwise noted.

Typical (mean plus three standard deviations)

"Typical" indicates performance that units will meet under the following conditions:

- Ambient operating temperature of 23°C, unless otherwise noted.
- After specified warm-up time of 30 minutes and self calibration at ambient temperature.
- This performance is not warranted.

Nominal (mean or expected value)

"Nominal" values indicate expected performance, or describe product performance that is useful in the application of the product, but is not covered by product warranty.

Modes of operation

Multi-input configuration supports up to four V2820A RF Vector Signal Analyzers
Multi-output configuration supports up to four V2920A RF Vector Signal Generators

MULTI-INPUT CONFIGURATION SPECIFICATIONS

Parameter	Nominal
Time record jitter	≤ 250 ps
Relative phase jitter of slave relative to master	< ±1 degree

MULTI-OUTPUT CONFIGURATION SPECIFICATIONS

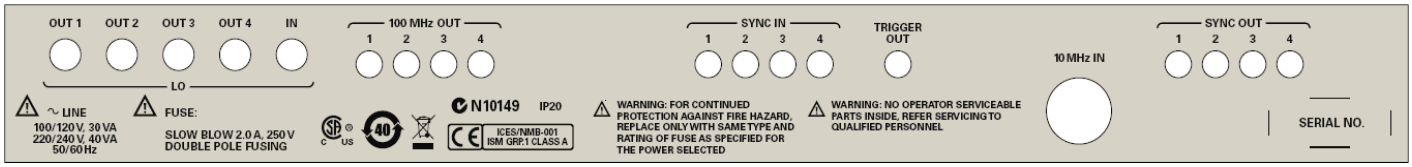
Parameter		Nominal
Waveform ARB alignment		< ±1 ns
Waveform ARB jitter		≤ 1 ns
Relative phase jitter of slave relative to master[1]		< ±0.1 degree RMS
Off power between bursts	Amplitude Level	
	> 0 dBm	< -90 dBc
	< 0 dBm	< 90 dBm
Burst rise/fall times (10-90%)		< 200 ns

[1] Calculated from phase noise measurements.

V2895A INPUTS AND OUTPUTS

Parameter	Nominal
External frequency reference input	
Frequency lock range	10 MHz ±10 Hz (1 ppm)
Amplitude lock range	Input power range: 0 to +15dBm[2]
Impedance	50 Ω (nominal), BNC connector
MIMO system interconnections	
LO IN	Connects to the Master V2820A or V2920A LO output, SMA
LO OUT 1 through 4	Provides distributed LO power to the Slave V2820As or V2920As and back to the Master V2820A or V2920A, SMA
100 MHz OUT 1 through 4	Provides 100MHz Clock outputs to the Master and Slave V2820A/V2920As, SMB(m)
SYNC IN 1 through 4	Inputs from V2820A or V2920A Sync Outputs. Input level: 3.3V CMOS, SMB(m)
SYNC OUT 1 through 4	Provides SYNC signals to V2820A or V2920A. Output level: 3.3V CMOS, SMB(m)
Trigger Out	For future capability

V2895A rear panel overview



[2] For optimum phase noise performance, 0 dBm ≤ Pin ≤ +10 dBm.

GENERAL SPECIFICATIONS

<table>
<tr><th>Parameter</th><th>Specification</th></tr>
<tr><td>IEC</td><td>This product is designed for use in INSTALLATION CATEGORY II and POLLUTION DEGREE 2, per IEC 61010-1 Second Edition.</td></tr>
<tr><td>EMC compliance</td><td>▪ Complies with European EMC Directive 2004/108/EC
▪ IEC/EN 61326-1 or IEC/EN 61326-2-1
▪ CISPR Pub 11 Group 1, class A
▪ AS/NZS CISPR 11
▪ ICES/NMB-001: This ISM device complies with Canadian ICES-001. (Cet appareil ISM est conforme a la norme NMB du Canada.)</td></tr>
<tr><td>Safety compliance</td><td>▪ Complies with European Low Voltage Directive 2006/95/EC
▪ IEC/EN 61010-1, 2nd Edition
▪ Canada: CSA 22.2 N0. 61010-1-04
▪ USA: UL Std No. 61010-1 (Second Edition)
▪ This instrument is in conformance with the German Regulation on Noise Declaration for Machines (Laermangabe nach der Maschinenlaermrerordnung - 3.GSGV Deutschland):
<table>
<tr><th>Acoustic noise emission</th><th>Geraeuschemission</th></tr>
<tr><td>LpA < 70 dB
Operator position
Normal position
Per ISO 7779</td><td>LpA < 70 dB
Am Arbeitsplatz
Normaler Betrieb
Nach DIN 45635 t.19</td></tr>
</table></td></tr>
<tr><td>Power requirements</td><td>100 VAC to 240 VAC; 50-60 Hz (automatically detected); 30 VA max. at 100-120 VAC, 40 VA max. at 220-240 VAC</td></tr>
<tr><td>Calibration</td><td>2 years</td></tr>
<tr><td>Environment (for indoor use only)</td><td>▪ 18°C to 28°C specified operating, unless otherwise noted
▪ 0°C to 50°C operating range
▪ -25°C to 65°C. non-operating (AC power off) storage
▪ Altitude: 2000 meters above sea level maximum specified operating
▪ Cooling: Convection, side intake and exhaust.</td></tr>
<tr><td>Mechanical vibration and shock (type tested)</td><td>▪ Random Vibration: MIL-PRF-28800F CL3, 3 axes, 5-500 Hz, 2.09g RMS
▪ Sine-Sweep for resonances: 3 axes, 5-500 Hz, 0.5g
▪ Bench Handling: MIL-STD-810F, 4.5.7 Procedure VI</td></tr>
<tr><td>General mechanical information</td><td>▪ Height: 44 mm (1.75”), 1U
▪ Width: 425 mm (16.73”), half-rack
▪ Depth: 559 mm (22.0”)
▪ Weight: 4.5 kg (10.0 lb)</td></tr>
<tr><td>Warranty</td><td>1 year</td></tr>
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