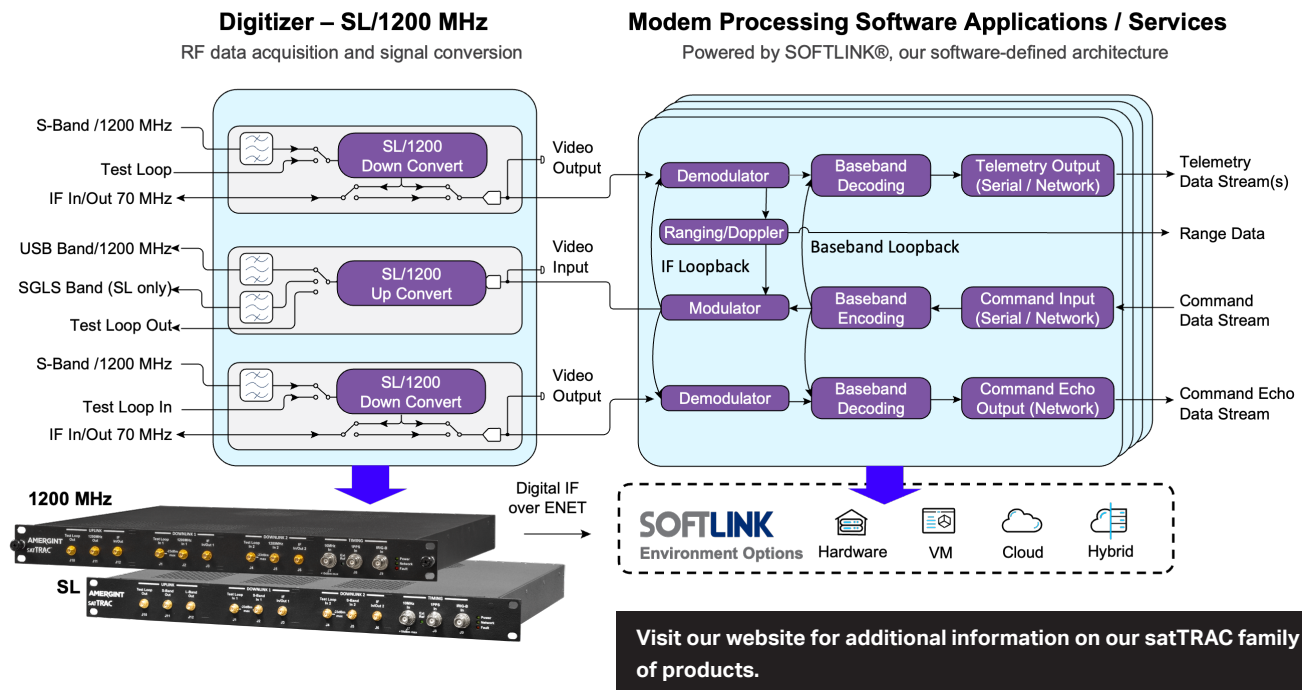


SL / 1200 MHz DIGITIZER

Use with our satTRAC® Modem

Our satTRAC Modem—a true software modem—uses one or more software applications / services and a variety of digitizer options to support a wide range of satellite TT&C, payload, communications, and test functions.



SPECIFICATIONS

TIMING & REFERENCE SIGNALS	SPECIFICATION
Frequency Reference	10 MHz
Internal Frequency Reference Accuracy	< 0.1 ppm
External Frequency Reference Input:	
Level Range	-10 to +10 dBm
Impedance	50 Ohms
Phase-Lock Frequency Range	+/-5 Hz
Spurious	-60 dBc max
Phase Noise at Offset ≥ 10 Hz	-86 dBc/Hz max
Time References Supported	IRIG-B, 1PPS, NTP
Time Reference Voltage Levels (for IRIG and 1PPS)	0.3 to 5 V peak-to-peak (IRIG) 5 V max (1PPS)
Time Reference Impedance (for IRIG and 1PPS)	10K Ohms

ANALOG VIDEO I/O	SPECIFICATION
Video Input & Output Channels	2 In, 2 Out
Video Bandwidth	7.5 MHz

PHYSICAL INFORMATION	SPECIFICATION
Weight	< 65 lbs
Server Dimensions	3.4 H x 19 W x 25.5 D (in)
satTRAC Dimensions	1.75 H x 17.1 W x 15 D (in)
Power Requirements	+12 V DC at 6 Amps max

SPECIFICATIONS (CONT.)

RF OUTPUT	SPECIFICATION
Number of Output Channels	1
DAC Mixer	1/4 (246)
Frequency Ranges:	
SGLS Up	1750 to 1850 MHz
USB Up	2025 to 2120 MHz
1200 MHz	1150 to 1250 MHz
Test (unfiltered)	1690 to 2400 MHz or 950 to 1450 MHz
Output Power Range	-30 to +10 dBm
P1dB	+26 dBm (S/L) +16 dBm (1200 MHz)
Output Power Accuracy	+/-0.5 dB
Instantaneous Dynamic Range	80 dB
Noise Power Density	-135 dBm/Hz max (S/L) -123 dBm/Hz max (1200 MHz)
Output VSWR	1.3: 1
Output Impedance (nominal)	50 Ohms
Gain Adjustment	60 dB in 0.1 dB Steps
Instantaneous Bandwidth	> 40 MHz (at S/L) > 100 MHz (at 1200 MHz)
Tuning Step Size	< 1 μ Hz
Output Spurious	< -65 dBc with output power -15 to +10 dBm
Output Spurious with Analog Video I/O Enabled	< -55 dBc with output power -15 to +10 dBm
Frequency Stability and Aging (using internal reference)	+/- 5 ppb over operating temp range, < +/- 100 ppb/yr
Amplitude Response (Flatness)	+/- 0.2dB over 4 MHz
Phase Noise:	
10 Hz	-60 dBc/Hz
100 Hz	-80 dBc/Hz
1 kHz	-90 dBc/Hz
10 kHz	-95 dBc/Hz
100 kHz	-97 dBc/Hz
1 MHz	-115 dBc/Hz
10 MHz	-124 dBc/Hz
100 MHz	-136 dBc/Hz

RF INPUT	SPECIFICATION
Number of Input Channels	1 or 2
Frequency Ranges:	
SGLS/USB Down	2200 to 2300 MHz
1200 MHz	1150 to 1250 MHz
Test/Echo (unfiltered)	1690 to 2400 MHz or 950 to 1450 MHz
Operational Input Power Range	-100 to -23 dBm
Maximum Input Signal (damage)	+18 dBm
Instantaneous Dynamic Range	> 74 dB
Noise Figure (at max gain)	< 4 dB typical, 8 dB max
Input VSWR	1.3: 1
Input Impedance (nominal)	50 Ohms
AGC (50 dB range) Time Constant	0.001 to 1 seconds
Instantaneous Bandwidth	> 40 MHz (at S/L) > 100 MHz (for Wideband S/L) > 100 MHz (at 1200 MHz)
Tuning Step Size	< 1 μ Hz
In-Band Spurious	< -59 dBc

ENVIRONMENTAL INFORMATION	SPECIFICATION
Server Temperature (Operating)	-5°C to 40°C
Server Temperature (Storage)	-40°C to 65°C
Server Relative Humidity	5% to 95% non-condensing
Digitizer Temperature (Operating)	-5°C to 45°C
Digitizer Temperature (Storage)	-40°C to 65°C
Signal Converter Relative Humidity	5% to 90% non-condensing

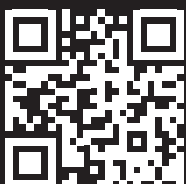
SL FRONT



1200 MHz FRONT



UNIVERSAL BACK



FOR ADDITIONAL INFORMATION:

2315 Briargate Pkwy., Suite 100
Colorado Springs, CO 80920 USA

Tel: 719-522-2800 | Fax: 719-522-2810

 [arka-group-technologies](https://www.linkedin.com/company/arka-group-technologies)  www.arka.org



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