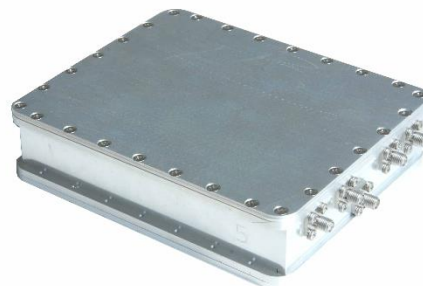


KU-BAND FREQUENCY SYNTHESIZER

ACSINT-Ku Series



Ed.01
23/09/10

ACSINT-Ku series are a state of art frequency synthesizers designed to meet the hardest requirements of the modern satellite communication systems. Leading the customer's needs, ACORDE Technologies has complied requirement of 1 kHz frequency step, wide bandwidth with an excellent spurious rejection. ACSINT-Ku series cover required frequency bandwidth for all Ku-band Rx/Tx frequency converters.

Synthesizers can be operated via remote control RS232 and RS422/485. Operating temperature range is 0°C to +50°C (-20°C to +55°C option in outdoor enclosure is also available).

SYNTHESIZER SPECIFICATIONS

Output impedance	50 Ω
Output power @ 25°C	+13 dBm min
Output flatness	± 1.0 dB over the whole bandwidth
Output stability vs temperature	± 1.0 dB over the whole range
Output sample ports.....	-20 dBc
Frequency step	1 kHz (See options)
Frequency accuracy	< 0.001Hz
RF 2nd Harmonic suppression	< -25dBc
Fixed PLO 2nd Harmonic suppression	< -60dBc
Spurious in-band	< -60dBc
Spurious out-of-band	< -70dBc
Output phase noise (IESS-308/309 – 5 dB):	
100 Hz	-65 dBc/Hz
1 kHz	-75 dBc/Hz
10 kHz	-85 dBc/Hz
100 kHz	-95 dBc/Hz
Reference frequency	10 MHz (5 MHz as option)
Reference input level	0 dBm ± 5 dB
LO frequency stability.....	same as external reference
Acquisition time (to phase lock)	500 ms max
Minimum external reference to compliant typical phase noise (IESS-308/309 – 5 dB):	
100 Hz	-135 dBc/Hz
1 kHz	-145 dBc/Hz
10 kHz	-155 dBc/Hz

▼ POWER SUPPLY

DC input voltage 1+7 VDC (1400 mA typ.)
 DC input voltage 2+15 VDC (30 mA typ.)

▼ ENVIRONMENTAL SPECIFICATIONS

Storage temperature-40 to +80°C
 Operating temperature0 to +50°C (-20 to +55°C as option)
 Relative humidity.....up to 100%
 Operating altitudeup to 3500 m

▼ MECHANICAL SPECIFICATIONS

Interfaces:

RF outputSMA female 50 Ω
 RF monitor.....SMA female 50 Ω
 Fixed LO outputSMA female 50 Ω
 Fixed LO monitorSMA female 50 Ω
 Reference input.....SMA female 50 Ω
 Serial port RS485S6B-PH-SM4-TB
 Power supply +7VDCFeedthrough 7A
 Power supply +15 VDCFeedthrough 7A
 Cooling systemNone
 Dimensions for E1160 x 115 x 32 mm
 Dimensions for E2.....156 x 129 x 38 mm
 Weight for E11.1 kg
 Weight for E2.....1.3 kg

▼ OPTIONS

Frequency band	Step size ⁽¹⁾	Fixed LO frequency ⁽²⁾	Model Number
12.53 to 13.28 GHz	125 kHz	1150 MHz	ACSINT-Ku-E2-V1-xxx
12.53 to 13.28 GHz	1 kHz	1150 MHz	ACSINT-Ku-E2-V2-xxx
13.14 to 15.19 GHz	125 kHz	2510 MHz	ACSINT-Ku-E4-V1-xxx
13.14 to 15.19 GHz	1 kHz	2510 MHz	ACSINT-Ku-E4-V2-xxx

SY1:External 5 MHz Reference
 SY2:Operating temperature (-20 to +55°C)
 SCC:Custom Design

⁽¹⁾ Other frequency steps up to 1 Hz upon request

⁽²⁾ Fixed LO frequency available at L and S band in 5 MHz step