

AFS Series Frequency Synthesizers

1 to 15 GHz (in bands)

**Great for Fixed and Mobile SATCOM
Converters, Digital Radio, and
Instrumentation!**



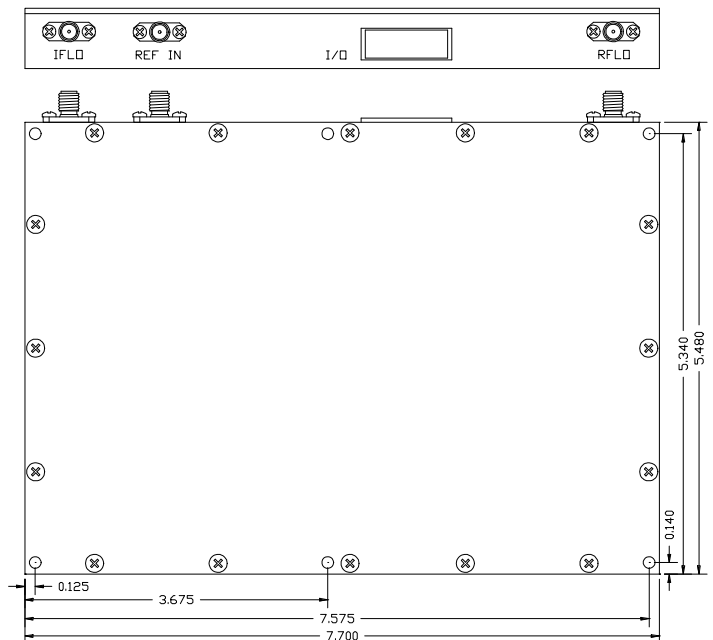
AMP's AFS Series Frequency Synthesizers offer an unmatched combination of low cost, RoHS compliance, and performance. Our unique modular design approach significantly reduces cost and maximizes production capacity.

AFS synthesizers offer up to 1.1 GHz C-band and 1.8 GHz Ku-band bandwidth for extended converter coverage. A built-in fixed frequency IFLO is standard equipment. A wide range of frequency plans and custom options are available.

AFS synthesizers exceed the requirements of IESS 308, Eutelsat, and MIL-STD-188 for fixed and mobile SATCOM ground stations.

Design Features:

- **RoHS Compliant Design**
- **Low Cost / High Reliability**
- **Covers C, X, Ku Bands**
- **7.7" x 5.5" x 0.73" Package**
- **Low Power Consumption**
- **1.8 GHz Bandwidth at Ku-Band**
- **1.1 GHz Bandwidth at C-Band**
- **1 kHz or 125 kHz Frequency Steps**
- **Low Phase Noise (10dB better than IESS)**
- **Built-In L-Band IFLO**
- **Meets IESS 308, Eutelsat, and MIL-STD-188-164**
- **Wide Operating Temperature Range**
- **Meets ETSI 300019-1-4 Shock and Vibration Requirements**



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AMP AFS Series Frequency Synthesizers

Specifications

Output Frequency	1 – 15 GHz (in bands)		
Frequency Bandwidth	1.1 GHz at C-Band 1.8 GHz at Ku-Band		
Step Size	1 kHz or 125 kHz		
Switching Speed	50 msec max		
Frequency Control	3-wire Serial Interface		
Lock Alarm	TTL, Any Logic		
Output Power	+12 to +15 dBm		
Output VSWR	2.0:1		
In-Band Spurious	<-65 dBc		
Out of Band Spurious	<-80 dBc		
Phase Noise (dBc/Hz, Typical)	Offset	C-Band	Ku-Band
	1 kHz	-78	-77
	10 kHz	-92	-88
	100 kHz	-114	-108
Fixed L-Band Output			
Frequency Range	0.5 – 3.0 GHz		
Power Output	+12 dBm ±2 dB		
Spurious	<-80 dBc		
Phase Noise	-106 dBc/Hz @ 10 kHz Typical		
External Reference			
Input Frequency	10 MHz		
Input Level	-5 to +5 dBm		
Microphonics	ETSI 300019-1-4		
Power Consumption	6 Watts		
DC Supply	+15V / 250 mA, 5.25V / 500 mA		
Operating Temp Range	-15°C to +70°C		
Connectors			
RF, IFLO Outputs	SMA-F		
Reference Input	SMA-F		
DC Input, Alarm, Frequency Control	14-pin 0.1" Dual Row Header		
Dimensions	See Outline Drawing		