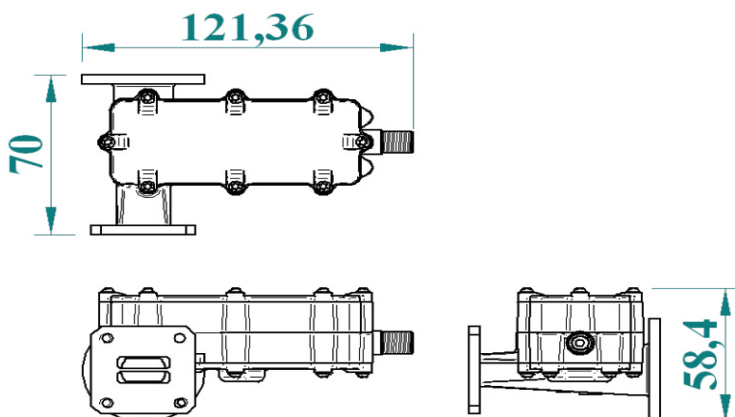
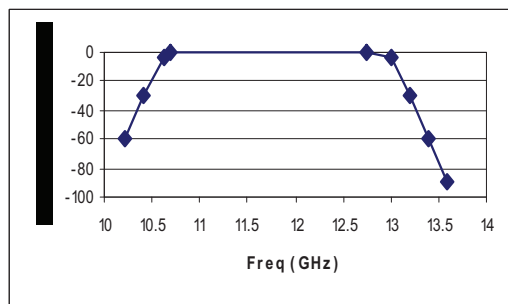


SPV-10SM, SPV-11SM, SPV-20SM & SPV-21SM



1	Input Frequency	SPV-10 & 20SM	SPV-11 & 21SM
	Low Band	10.7 - 11.7	10.95-12.15 GHz
	High Band	11.7 - 12.75	12.25-12.75 GHz
2	Output Frequency		
	Low Band	950 - 1950	950-2150 MHz
	High Band	1100 - 2150	950-1450 MHz
3	Local Oscillator Frequency		
	LO	9.75GHz	10.0 GHz
	High	10.6GHz	11.30 GHz
4	Noise Figure (measured at circular waveguide port)		0.7 dB typ
5	Gain		57 - 70dB
6	Gain Ripple		
	26 MHz bandwidth		<1dB
	Low Band		<5dB typ
	High Band		<5dB typ
7	Local Oscillator Phase Noise (typ)		
	1kHz		-80 dBc/Hz
	10kHz		-100 dBc/Hz
	100kHz		-115 dBc/Hz
8	Local Oscillator temperature stability		
	-40°C to +70°C		+/-450 KHz
9	OMT Transmit to Receive Isolation, all ports terminated		
	10.7 - 14.5GHz		35 dB
10	OMT Transmit XPD, all ports terminated		
	13.75 – 14.5GHz		35 dB
11	Rejection to transmit signal at F-type from rectangular flange input		140 dB typ
12	Image Rejection		120 dB typ
13	Maximum Tx power level at rectangular flange input		
	14.0 - 14.5GHz		10 Watt
14	Two tone o/p IP3		>15 dBm

15 integrated filter frequency response (typ)



16	Output Connector	F -type
	Return Loss in 75 Ohm	>10 dB
17	Operating Temp Range	-40°C to +70°C
	Storage Temp Range	-40°C to +70°C
18	PSU (applied to F-type)	8 – 21V
19	Current consumption	110mA typ
20	Band selection – signals applied to F-type	
	SPV-10SM & SPV-11SM	
	High band selection	22kHz tone
	Low band selection	No tone
SPV-20SM & SPV-21SM	Low band Selection	11.5 to 14V
	High band selection	15.5 to 21V

LO/Control	Tone	Voltage
9.75&10.6 GHz	SPV-10SM	SPV-20SM
10.0&11.3 GHz	SPV-11SM	SPV-21SM

21 Waveguide Interfaces

Feed Antenna Port	18.5mm ? Waveguide, C120 Flange
Transmitter Port	WG17, R120, WR75, UBR120