INPUT SPECIFICATION			Options
1.	Frequency range:	70 ± 20MHz or 140 ± 40MHz	(check model table)
2.	Connector:	BNC	
3.	Impedance:	50Ω	75Ω
4.	Return loss:	≥15dB	)
OUTPUT SPECIFICATION			
5.	Frequency range:	Any 1GHz or 2GHz within 7.0 to 9.0GHz	(check model table)
6.	Connector:	N-type	SMA
7.	Impedance:	50Ω	
8.	Return loss:	≥20dB	
9.	1dB compression point:	+10dBm	
10.	Third order intercept::	+20dBm	
TRANSFER CHARACTERISTICS			
11.	Gain:	0 to 30dB, adjustable in 0.1dB steps	
12.	Gain ripple: over ±20MHz:	≤1dB p.t.p.	
	over ±40MHz:	≤1.5dB p.t.p	
	over output band:	≤4dB p.t.p	
13.	Group delay distortion: over ±5MHz	<2ns	
	over ±20MHz	<5ns	
14.	Gain stability, 0°C to 50°C:	±1dB	
15.	Frequency stability, -10°C to +60°C:	$1x10^{-7}$ from 0°C to +50°C	
		$1x10^{-8}$ at constant temperature over 24 hrs.	
16.	External reference:	10MHz, 0dBm	5MHz, 0dBm
17.	Synthesiser step size:	1kHz	
18.	Noise figure (full gain):	<20dB	
Spurii			
19.	Image rejection:	>50dB	
20.	In-band spurii (at 0dBm output):	<-55dBc	
PHASE NOISE			
21.	10Hz:	<-45dBc/Hz	
22.	100Hz:	<-70dBc/Hz	
23.	1kHz:	<-80dBc/Hz	
24.	10kHz:	<-85dBc/Hz	
25.	100kHz:	<-95dBc/Hz	
26.	1MHz:	<-110dBc/Hz	
27.	Mains related:	<-50dBc	
MISCELLANEOUS			
28.	Power supply:	115V/230V ±10% 50/60Hz ±10%, 50VA	
29.	Mechanical:	1U 19” frame, 400mm deep	
30.	Temperature: Operating:	0° to 50°C	
	Storage:	-40° to 85°C	
31.	Relative humidity: Operating:	0 to 90%	
	Storage:	0 to 95%	
32.	Summary alarm:	NO and NC dry relay contacts via rear mounted connector	
33.	Summary alarm indication:	Front panel LED	
34.	Remote control:	● RS232 or RS422/RS485, connector D-type 9P F ● SNMP and HTTP over TCP/IP Ethernet, connector RJ45	

MODEL TABLE

Output Frequency	Input frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
7.0 - 8.0	U690-1	U691-1	U692-1
8.0 - 9.0	U690-2	U691-2	U692-2
7.0 - 9.0	U690-3	U691-3	U692-3
8.1 – 8.6	U690-4	U691-4	U692-4
7.240-7.250	U690-5	U691-5	U692-5
7.0 – 7.5	U690-6	U691-6	U692-6
7.145-7.235	U691-X	230 +/- 20 MHz	