2.4 GHz hybrid 90 degree coupler 100W

Matthias DD1US 08.07.2019

GSC356-HYB2500

2.5GHz Band 90Deg. Chip Hybrid Coupler

Compact & High power capability.

Application

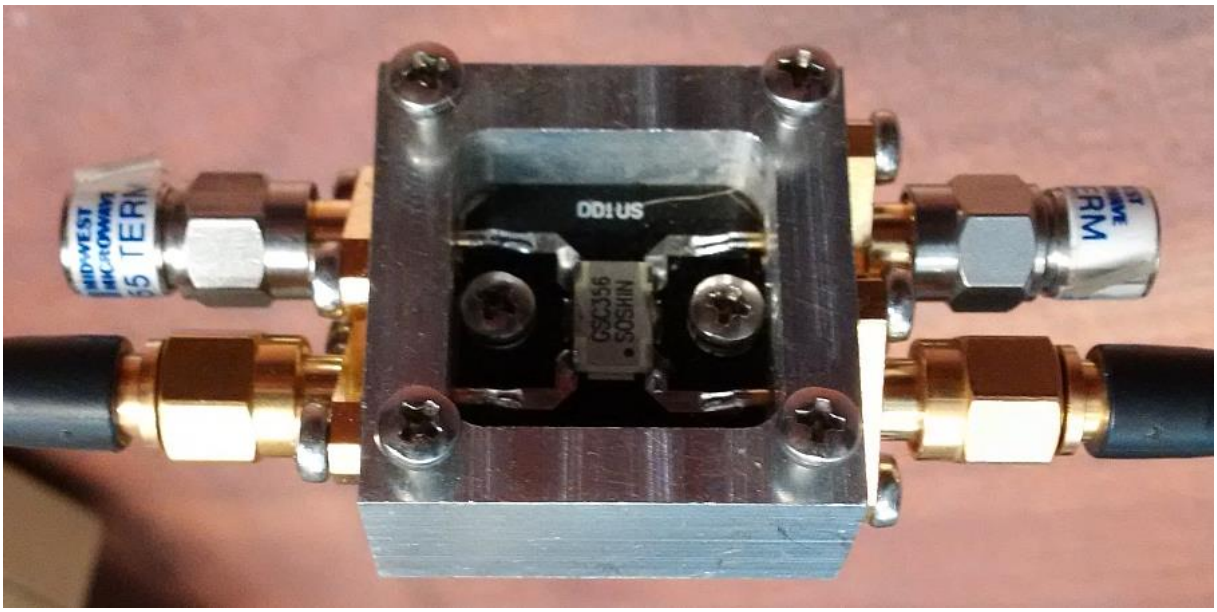
for RF power amplifier (Base station)

Characteristics

GSC356-HYB2500

Impedance	50 ohm Nominal
Frequency Range	2400-2700MHz
Insertion Loss	0.25dB max (Typ. 0.2dB at 25 Deg.C)
	0.35dB max (-40 up to 125 Deg.C)
Amplitude Level Balance	0.3dB max (at 25 Deg.C)
	0.4dB max (-40 up to 125 Deg.C)
Phase Balance	90+/-3 Degrees
V.S.W.R	1.18 max
Isolation	23dB min
Input Power	100W Avg/CW
Operating Temperature	-40 up to 125 Deg.C
Storage Temperature	-40 up to 85 Deg.C
	(-20 up to 35 Deg.C for tape and reel materials)

Mounted on a PCB and built in a milled aluminium encasing:



Measurements done with HP8753E calibrated with electronic SMA Calkit, frequency 2400 MHz

port 1 (with dot)	IN
port 2	Out 0 degree
port 3	Out 90 degree
port 4	ISO

S11 (1-3)	-25 dB	(VSWR 1.11)
S11 (1-2)	-21 dB	(VSWR 1.19)
S22	-21dB	
S33	-26dB	
S21	-3.31 dB	-164.55 degree
S31	-3.43 dB	+104.75 degree
S41	-22.5dB (isolation)	

Amplitude imbalance	0.12 dB
Phase imbalance	0.7 degree
Insertion loss	0.4 dB (in addition to the 3dB)
Isolation	22.5 dB

Vy 55 & 73 de Matthias DD1US dd1us@amsat.org