

### Product Features

- Doherty amplifier design
- GaN on SiC HEMT
- Small and light weight
- 50 Ohm Input/Output impedance matched
- Highly reliable and rugged design
- High efficiency, High Gain
- 8W typical  $P_{AVG}$

### Application

- WiMAX DPD amplifier
- General purpose RF amplifier



### Description

The RTP26010-S0 is designed for RF system application frequencies from 2496MHz to 2690MHz, with high gain. This Pallet Amplifier uses GaN on SiC HEMT technology which performs high breakdown voltage, high linearity, high efficiency. The RTP26010-S0 is DPD application amplifier.

### Electrical Specifications @ $V_{DD}=+30VDC$ , $T=25^{\circ}C$ , $50\Omega$

PARAMETER	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	2496	-	2690	MHz
Output Power	$P_{AVG}$	-	8	10	Watt
Output Power @ Psat G.C.P	Psat	-	50	-	Watt
Small Signal Gain	SSG	45	-	-	dB
Small Signal Gain Flatness	$\Delta G$	-	$\pm 1.0$	$\pm 2$	dB
Gain Variation	$\Delta G_t$		$\pm 3.0$		dB
ACLR @ WiMAX 10MHz 2FA	ACLR		-25dBr		dBr
Input VSWR	S11	-	1.5:1	1.7:1	-
Forward Coupling	FC	-	-30	-	dB
Operating Voltage	VDC	28	30	-	Volt
Efficiency @ Pout 10Watt	E		30		%

※ Test Signal Condition : WCDMA 4FA

### Environmental Characteristics

PARAMETER	Symbol	Min	Typ	Max	Unit
Operating Temperature	$T_c$	-20	-	+50	$^{\circ}C$
Storage Temperature	$T_s$	-30	-	+60	$^{\circ}C$

### Mechanical Specifications

PARAMETER	Value	Units	Limits
Dimensions ( L x W x H )	150 x 90 x 18.5	mm	Max
RF Connectors In/Out	SMA Female		
RF Connector Coupling	MCX Female		
DC Connectors / Controls	Main 4Pin, Sub 6Pin		
Cooling	External Heat sink + airflow		

**RF Interface Connectors**

Pin #	Description	Specifications
1	RF IN	RF Input signal from TRx B'd
2	RF OUT	RF Output signal to TDD switch
3	RF FWD Port	RF Forward Detection signal For Feed-back

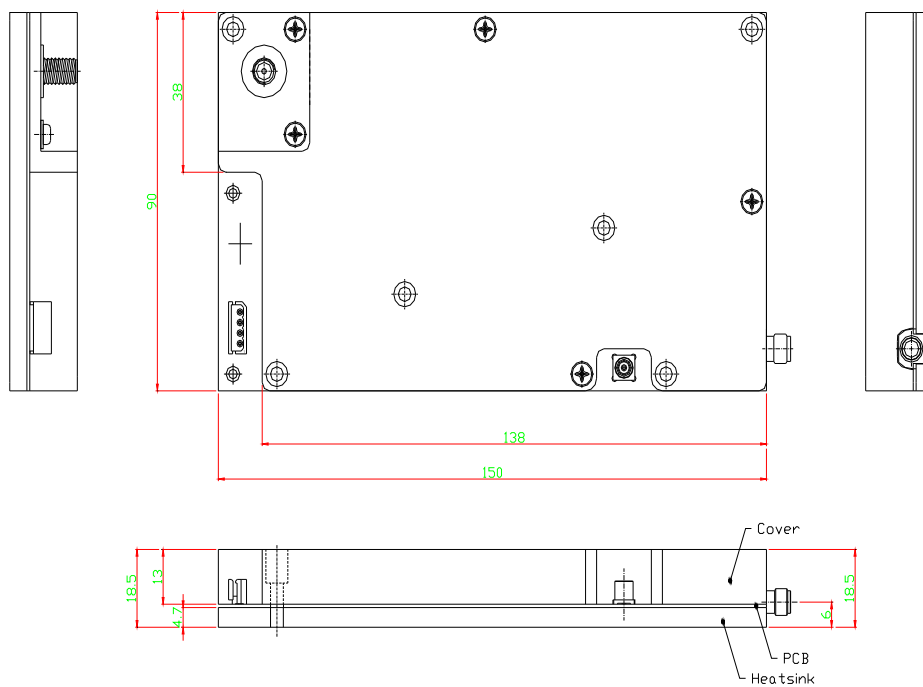
**Main DC Connector**

Pin #	Description	Specifications
1,2	Drive, Main Amp Stage +Vdd	+28V ~ +48V
3,4	GND	Ground

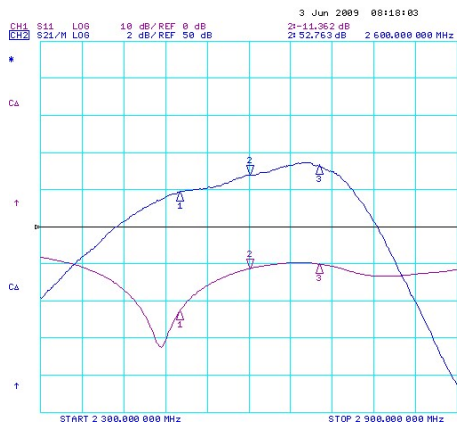
**Sub DC Connector**

Pin #	Description	Specifications
1, 2	Gain Block Amp Stage +Vgg	+5V
3, 4	GND	Ground
5	TDD Signal	PA TDD control signal for switching gate bias
6	Temp. Monitor	Reporting Temperature data [0.75V/25 °C (10mV/°C)]

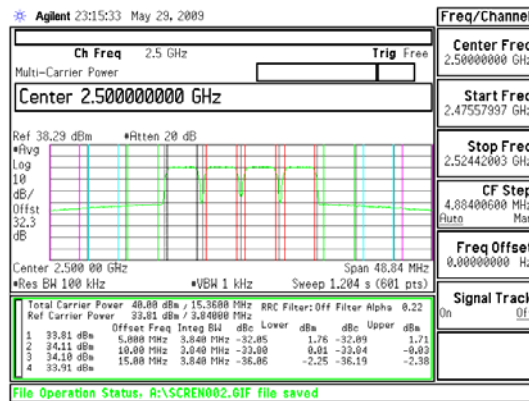
**Outline Drawing**



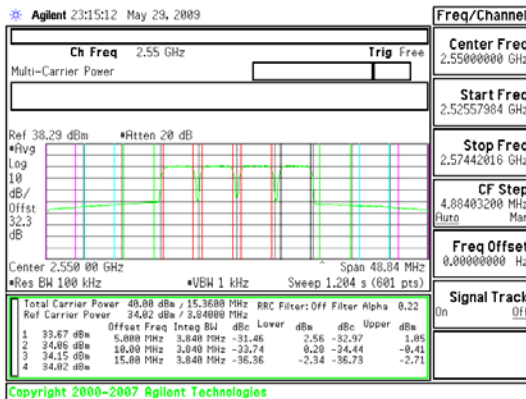
## S-Parameter vs. Frequency



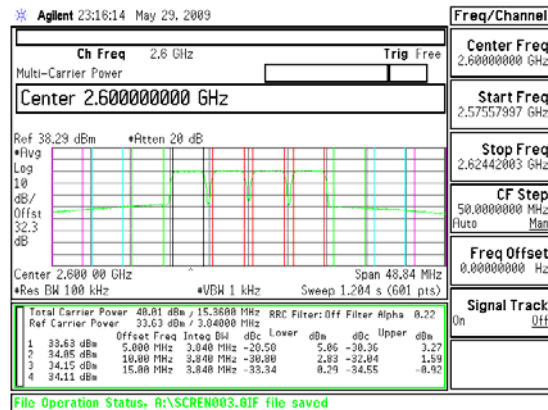
## WCDMA 4FA Signal @ 2500MHz



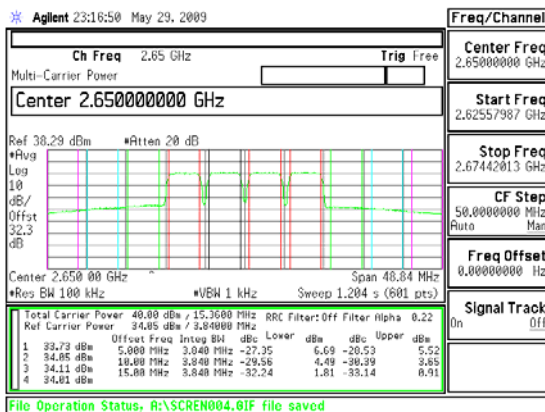
## WCDMA 4FA Signal @ 2550MHz



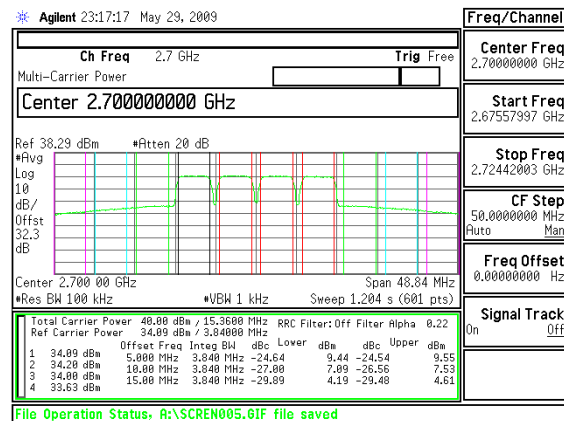
## WCDMA 4FA Signal @ 2600MHz



## WCDMA 4FA Signal @ 2650MHz



## WCDMA 4FA Signal @ 2700MHz



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