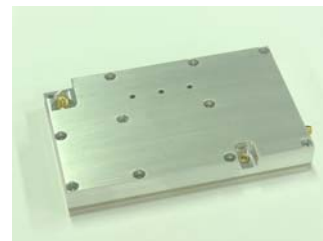


Product Features

- 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
- 8~10W typical P_{AVG}

Application

- WiMAX DPD amplifier
- General purpose RF amplifier



Description

RTP23010-12 has been designed for RF system application frequencies from 2300MHz to 2400MHz, with high gain. This DPD application Pallet Amplifier has been developed with GaN on SiC HEMT technology that has advantages of high breakdown voltage, high linearity, and high efficiency.

Electrical Specifications @ VDD=+30VDC, T=25°C, 50Ω

PARAMETER	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	2300	-	2400	MHz
Output Power	P_{AVG}	-	8	10	Watt
Output Power @ Psat G.C.P	P_{sat}	-	60	-	Watt
Small Signal Gain	SSG	58	60	-	dB
Small Signal Gain Flatness	ΔG	-	± 1.0	± 2	dB
Gain Variation	ΔG_t	-	± 3.0	-	dB
ACLR @ WiMAX 10MHz 2FA	ACLR	-23	-25	-	dBr
ACLR with DPD	ACLR	-	-46	-	dBr
Forward Coupling	FC	-32	-31	-30	dB
Operating Voltage	VDC	28	30	-	Volt
Efficiency @ Pout 10Watt(PAR 8.0dB)	E	-	35	-	%

* Test Signal Condition: WiMAX 10MHz 2FA (PAR 8.0dB), Test DPD solution : TI DPD

Environmental Characteristics

PARAMETER	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_c	-30	-	+60	°C
Storage Temperature	T_s	-40	-	+90	°C

Mechanical Specifications

PARAMETER	Value	Units	Limits
Dimensions (L x W x H)	130 x 80 x 18.8	mm	Max
Weight	300	g	Typical
RF Connectors In/Out	SMA Female		
RF Connector Coupling	MCX Female		
DC Connectors / Controls	MDF7-10S-2.54DSA		
Cooling	External Heat sink + airflow		