1000 Watt RF POWER MODULE
960 to 1215 MHZ

DESCRIPTION:

The **ASI P1000-1215** is a 1000 Watt 960-1215 MHz pallet Amplifier

Features:

- 1 kWatt (Pulse Width 20uS, Duty cycle 5%) RF Output Power (32 Watts Input Power)
- LDMOS Technology
- 48V operation
- High Gain, 15dB at 1 kWatt 1215MHz
- Compact design measuring only 2.6 x 4.6 Inches (64 x 117mm)
- Efficiency at 1 kWatt 1215MHz > 50%
- Excellent Efficiency from 500Watts to 1 kWatt
- Input and Output Matched to 50 Ohms
- Available in custom configurations: Connectors, Enclosures, and Base Plates

Thermal Characteristics:

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature Range	T_{STG}	+65	+150	°C
Operating Temperature Range	T_J		+230	°C
Thermal Resistance	$R_{TH(JC)}$		.05	°C/W

DC Characteristics:

Parameter	Symbol	Min.	Typ.	Max.
DC Supply Voltage	V_{DD}	28 V	48 V	50 V
Quiescent Current	I_{DQ}	350 mA	400 mA	450 mA
Maximum Current Draw @ 1 kWatt RF output Power	$I_{D(MAX)}$	--- A		

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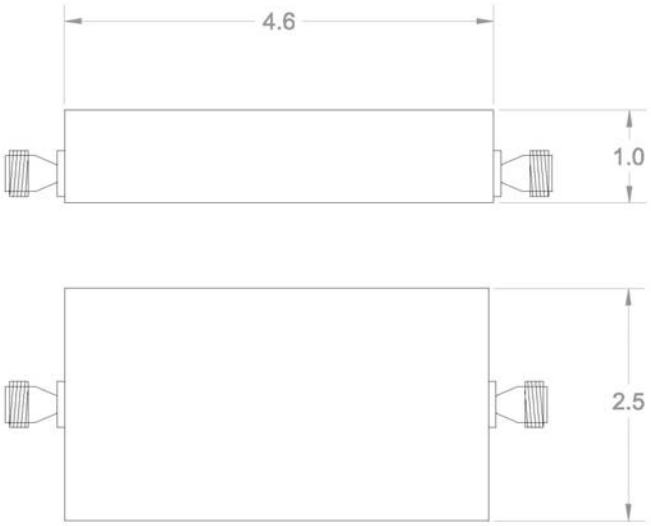
Thermal Characteristics: T_C = 25 °C

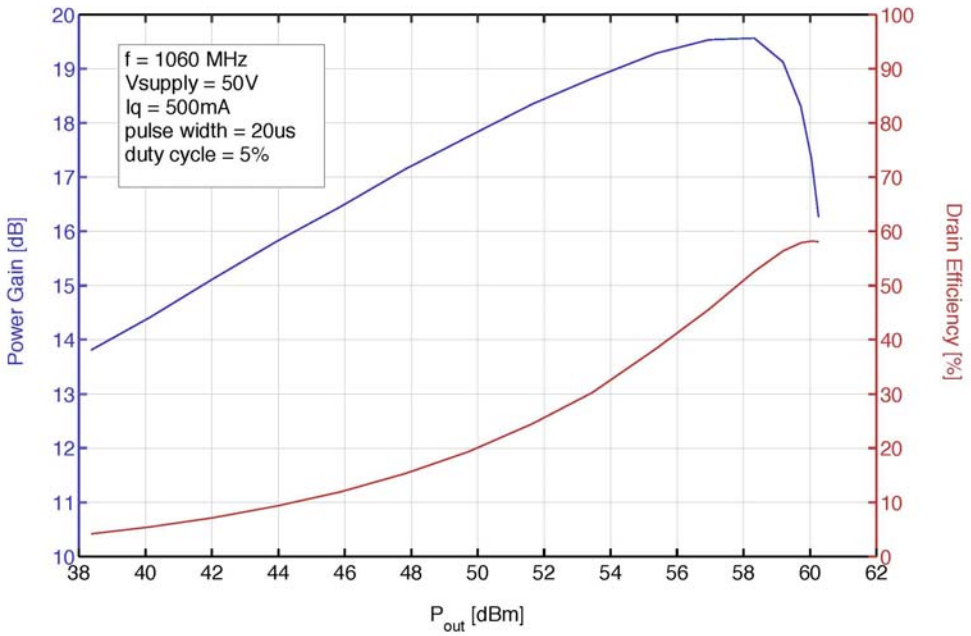
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
P_{OUT}	V_{DD} = 50 V I_{DQ} = 400 mA f = 960-1215 MHz Pulse Width = 20 µS Duty Cycle = 5 %	950	1000	1100	**W**
G_P	V_{DD} = 50 V I_{DQ} = 400 mA P_{OUT} = 1 kW	14	15		**dB**
ηD	f = 960-1215 MHz Pulse Width = 20 µS Duty Cycle = 5 %	50	55		**%**
G_P	V_{DD} = 50 V I_{DQ} = 400 mA P_{OUT} = 500W	15	16		**dB**
ηD	f = 960-1215 MHz Pulse Width = 20 µS Duty Cycle = 5 %	40	43		**%**
Ruggedness	V_{DD} = 50 V I_{DQ} = 400 mA P_{OUT} = 1kW f = 960-1215 MHz Pulse Width = 20 µS Duty Cycle = 5 %				
R_L	V_{DD} = 50 V I_{DQ} = 1.0 A Input Match	-5	-15	-20	**dB**
	Output Match	-5	-20	-35	**dB**

PACKAGE STYLE

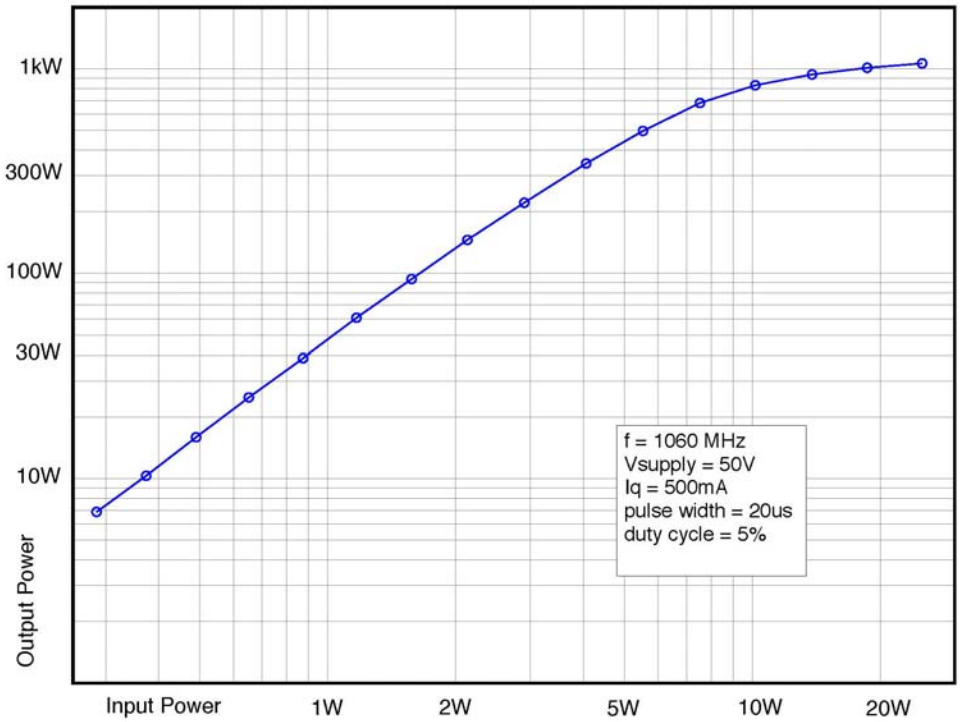


DIMENSIONS ARE IN INCHES

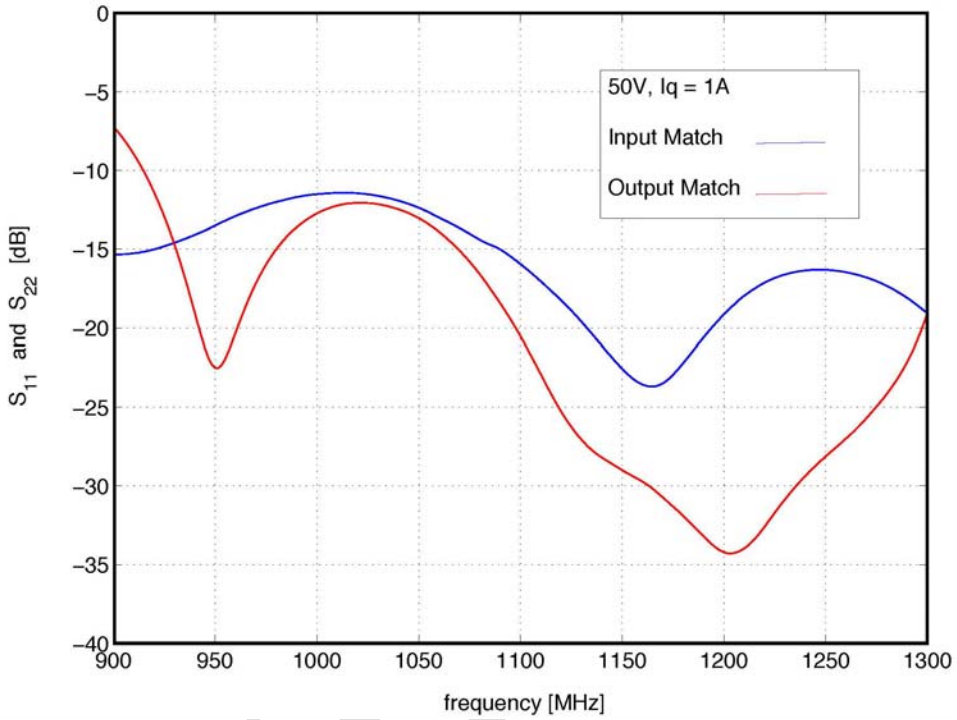
RF Performance at 1060 MHz



Pin vs Pout at 1060 MHz



Broadband Pallet Matching



Output Power vs. Drive Level