

FEATURES

- **HIGH POWER**
P1dB=33.0dBm at 5.1GHz to 7.2GHz
- **HIGH GAIN**
G1dB=22.0dB at 5.1GHz to 7.2GHz
- **BROAD BAND INTERNALLY MATCHED**
- **HERMETICALLY SEALED PACKAGE**

ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain Supply Voltage	VDD	V	15
Gate Supply Voltage	VGG	V	-10
Input Power	Pin	W	0.1
Flange Temperature	Tf	°C	-30 ~ +80
Storage Temperature	Tstg	°C	-65 ~ +175

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P1dB	VDD1=VDD2=VDD3 = 10V VGG= -5V f = 5.1 – 7.2GHz	dBm	32.0	33.0	—
Power Gain at 1dB Compression Point	G1dB					
Gain Flatness (1)*	ΔG1		dB	—	—	±1.5
Gain Flatness (2)**	ΔG2		dB	—	—	±2.0
Drain Current***	IDD		A	—	1.60	1.90
Input VSWR	VSWRi		—	—	—	3.0

* ΔG1 at f = 5.9 – 7.2GHz

** ΔG2 at f = 5.1 – 7.2GHz

*** IDD = IDD1 + IDD2 + IDD3

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TMD0507-2A

S-Parameters of TMD0507-2A

VDD=10V, VGG=-5V

Freq. (GHz)	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
4.9	0.05	3	18.2	-37	0.004	-22	0.54	22
5.0	0.01	-80	20.0	-72	0.004	-28	0.52	16
5.1	0.05	178	20.2	-105	0.004	-34	0.51	11
5.2	0.10	152	19.6	-135	0.004	-42	0.51	4
5.3	0.14	136	18.9	-163	0.005	-48	0.50	-4
5.4	0.18	123	18.6	170	0.005	-59	0.48	-15
5.5	0.21	112	18.5	145	0.005	-70	0.45	-29
5.6	0.24	96	19.1	119	0.005	-82	0.40	-46
5.7	0.23	77	19.4	91	0.005	-86	0.36	-63
5.8	0.22	59	19.3	63	0.004	-96	0.31	-83
5.9	0.20	38	19.0	35	0.004	-105	0.28	-106
6.0	0.17	15	18.4	8	0.004	-114	0.25	-131
6.1	0.16	-8	17.5	-19	0.004	-121	0.24	-155
6.2	0.15	-32	16.7	-45	0.004	-128	0.24	-176
6.3	0.15	-52	16.0	-71	0.003	-129	0.25	165
6.4	0.16	-67	15.5	-95	0.003	-133	0.26	151
6.5	0.17	-77	15.3	-120	0.003	-143	0.26	137
6.6	0.18	-83	15.3	-145	0.002	-145	0.27	126
6.7	0.19	-86	15.8	-171	0.002	-152	0.27	116
6.8	0.19	-87	16.8	161	0.002	-158	0.27	106
6.9	0.21	-86	18.2	131	0.002	-166	0.27	96
7.0	0.24	-88	19.8	96	0.002	-167	0.27	89
7.1	0.26	-96	20.3	56	0.001	-177	0.29	82
7.2	0.24	-103	18.3	14	0.001	-174	0.33	72
7.3	0.21	-107	15.3	-24	0.001	-163	0.36	59
7.4	0.18	-109	12.3	-61	0.001	-164	0.38	45