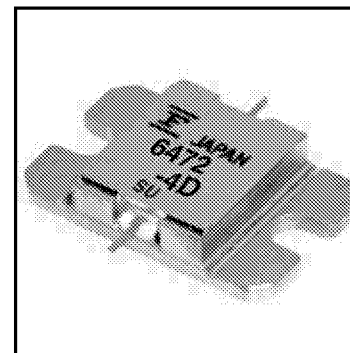


FEATURES

- High Output Power: $P_{1dB} = 36dBm$ (Typ.)
- High Gain: $G_{1dB} = 8.0dB$ (Typ.)
- High PAE: $\eta_{add} = 30%$ (Typ.)
- Low $IM_3 = -45dBc@Po = 25dBm$
- Broad Band: 6.4 ~ 7.2GHz
- Impedance Matched $Z_{in}/Z_{out} = 50\Omega$
- Hermetically Sealed Package



DESCRIPTION

The FLM6472-4D is a power GaAs FET that is internally matched for standard communication bands to provide optimum power and gain in a 50 ohm system.

Fujitsu's stringent Quality Assurance Program assures the highest reliability and consistent performance.

ABSOLUTE MAXIMUM RATING (Ambient Temperature $T_a=25^\circ C$)

Item	Symbol	Condition	Rating	Unit
Drain-Source Voltage	V_{DS}		15	V
Gate-Source Voltage	V_{GS}		-5	V
Total Power Dissipation	P_T	$T_C = 25^\circ C$	25	W
Storage Temperature	T_{stg}		-65 to +175	$^\circ C$
Channel Temperature	T_{ch}		175	$^\circ C$

Fujitsu recommends the following conditions for the reliable operation of GaAs FETs:

1. The drain-source operating voltage (V_{DS}) should not exceed 10 volts.
2. The forward and reverse gate currents should not exceed 8 and -2.2 mA respectively with gate resistance of 100Ω .

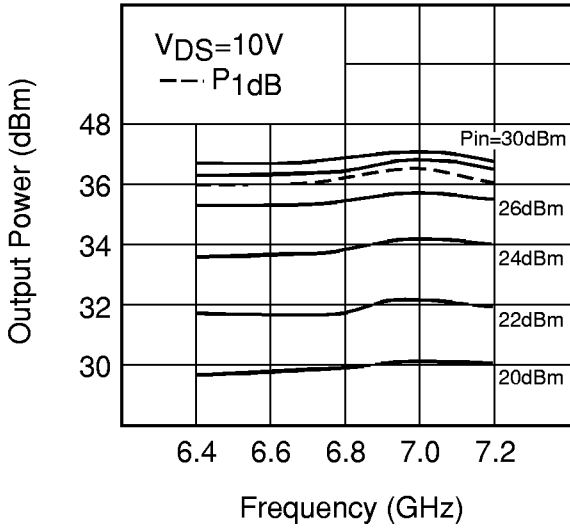
ELECTRICAL CHARACTERISTICS (Ambient Temperature $T_a=25^\circ C$)

Item	Symbol	Test Conditions	Limit			Unit
			Min.	Typ.	Max.	
Saturated Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS} = 0V$	-	1800	2700	mA
Transconductance	g_m	$V_{DS} = 5V, I_{DS} = 1100mA$	-	1000	-	mS
Pinch-off Voltage	V_p	$V_{DS} = 5V, I_{DS} = 90mA$	-1.0	-2.0	-3.5	V
Gate Source Breakdown Voltage	V_{GSO}	$I_{GS} = -90\mu A$	-5	-	-	V
Output Power at 1dB G.C.P.	P_{1dB}	$V_{DS} = 10V,$ $I_{DS} = 0.6 I_{DSS}$ (Typ.), $f = 6.4 \sim 7.2$ GHz, $Z_S = Z_L = 50$ ohm	35	36	-	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		7.0	8.0	-	dB
Drain Current	I_{dsr}		-	1100	1300	mA
Power-added Efficiency	η_{add}		-	30	-	%
Gain Flatness	ΔG		-	-	± 0.6	dB
3rd Order Intermodulation Distortion	IM_3	$f = 7.2$ GHz, $\Delta f = 10$ MHz 2-Tone Test $P_{out} = 25dBm$ S.C.L.	-42	-45	-	dBc
Thermal Resistance	R_{th}	Channel to Case	-	5	6	$^\circ C/W$

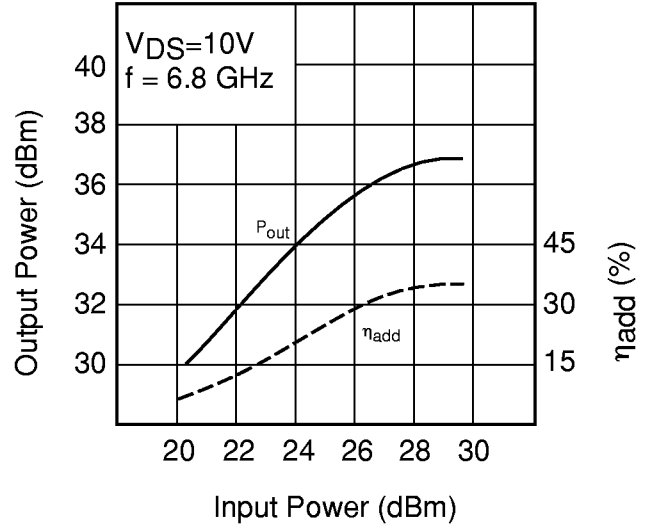
CASE STYLE: IB

G.C.P.: Gain Compression Point, S.C.L.: Single Carrier Level

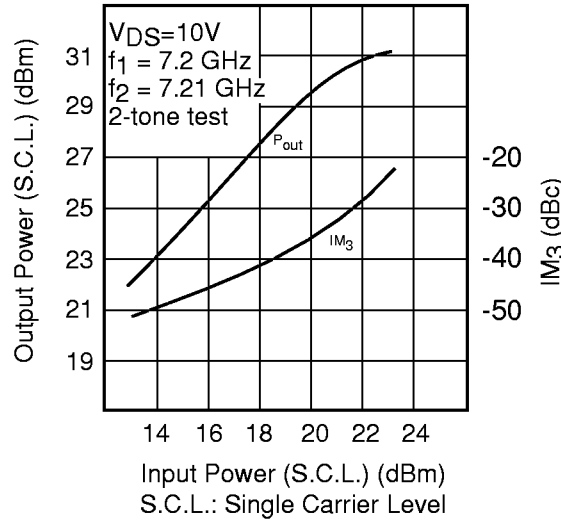
OUTPUT POWER vs. FREQUENCY

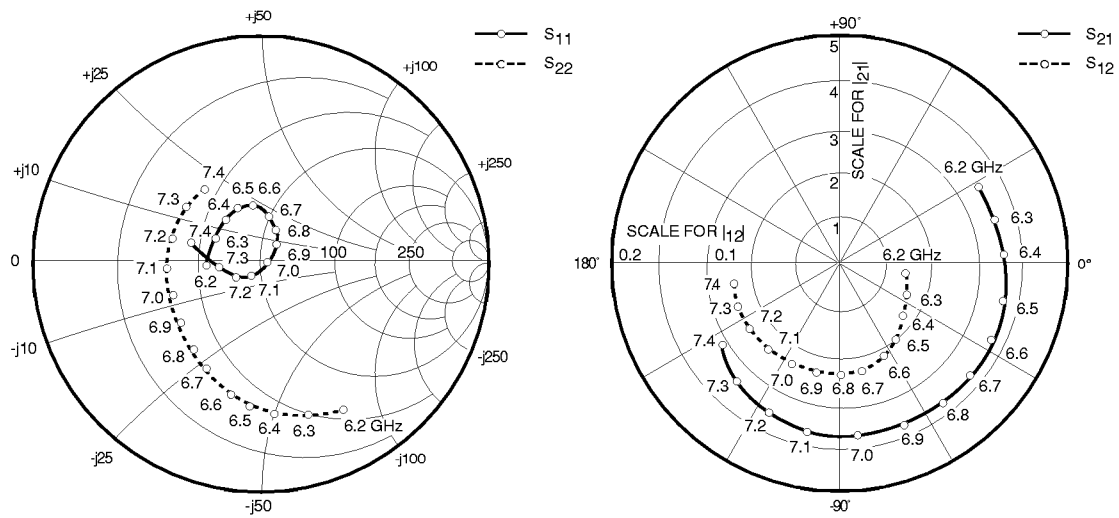


OUTPUT POWER vs. INPUT POWER



OUTPUT POWER & IM_3 vs. INPUT POWER





S-PARAMETERS

$V_{DS} = 10V, I_{DS} = 1100mA$

FREQUENCY (MHZ)	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
6200	.29	-177	3.47	29	.06	-8	.71	-62
6300	.26	158	3.52	15	.06	-23	.68	-73
6400	.25	134	3.65	3	.07	-39	.66	-84
6500	.24	114	3.63	-12	.07	-54	.62	-95
6600	.22	96	3.67	-26	.08	-66	.58	-106
6700	.20	77	3.70	-40	.08	-79	.55	-119
6800	.14	59	3.67	-54	.08	-91	.52	-133
6900	.09	38	3.68	-67	.09	-103	.50	-146
7000	.04	-8	3.67	-83	.09	-117	.46	-160
7100	.06	-126	3.60	-100	.09	-132	.46	-175
7200	.15	-156	3.49	-116	.10	-143	.45	166
7300	.25	-175	3.23	-132	.09	-157	.46	148
7400	.37	167	3.03	-146	.09	-169	.45	131

Case Style "IB"
Metal-Ceramic Hermetic Package

