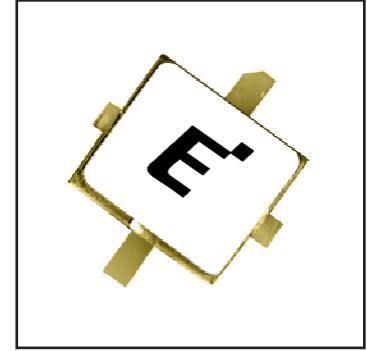


FEATURES

- High Output Power: $P_{1dB}=32.5dBm$ (Typ.)
- High Gain: $G_{1dB}=13.5dB$ (Typ.)
- High PAE: $\eta_{add}=46\%$ (Typ.)
- Hermetic Metal/Ceramic (SMT) Package
- Tape and Reel Available



DESCRIPTION

The FLU17XM is a GaAs FET designed for base station applications in the PCN/PCS frequency range. This is a new product series that uses a surface mount package that has been optimized for high volume cost driven applications.

Eudyna stringent Quality Assurance Program assures the highest reliability and consistent performance.

ABSOLUTE MAXIMUM RATINGS (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	PT	$T_c = 25^\circ C$	7.5	W
Storage Temperature	T_{stg}		-65 to +175	$^\circ C$
Channel Temperature	T_{ch}		+175	$^\circ C$

Eudyna 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 9.6 and -1.0 mA respectively with gate resistance of 200Ω .
3. The operating channel temperature (T_{ch}) should not exceed $145^\circ C$.

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

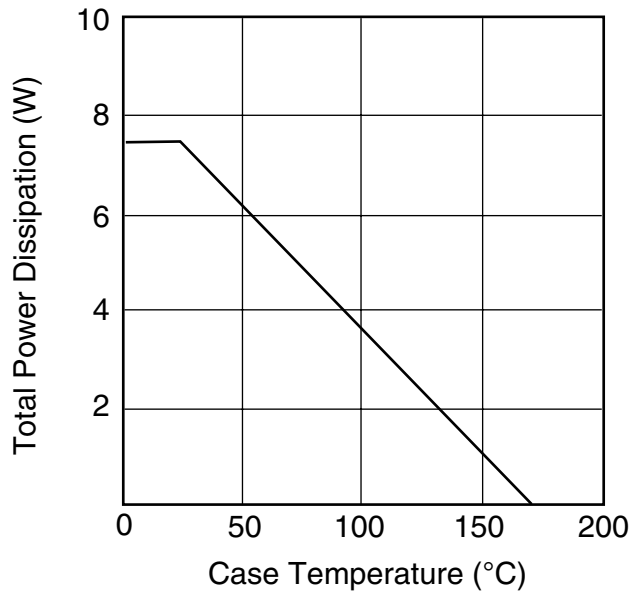
Item	Symbol	Conditions	Limits			Unit
			Min.	Typ.	Max.	
Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS}=0V$	-	600	900	mA
Transconductance	gm	$V_{DS} = 5V, I_{DS}=400mA$	-	300	-	mS
Pinch-Off Voltage	V_p	$V_{DS} = 5V, I_{DS}=30mA$	-1.0	-2.0	-3.5	V
Gate-Source Breakdown Voltage	V_{GSO}	$I_{GS} = -30\mu A$	-5	-	-	V
Output Power at 1 dB G.C.P.	P_{1dB}	$V_{DS} = 10V$ $f=2.0 GHz$ $I_{DS}=0.6I_{DSS}$	31.5	32.5	-	dBm
Power Gain at 1 dB G.C.P.	G_{1dB}		12.5	13.5	-	dB
Power Added Efficiency	η_{add}		-	46	-	%
Thermal Resistance	R_{th}	Channel to Case	-	15	20	$^\circ C/W$

Case Style: XM

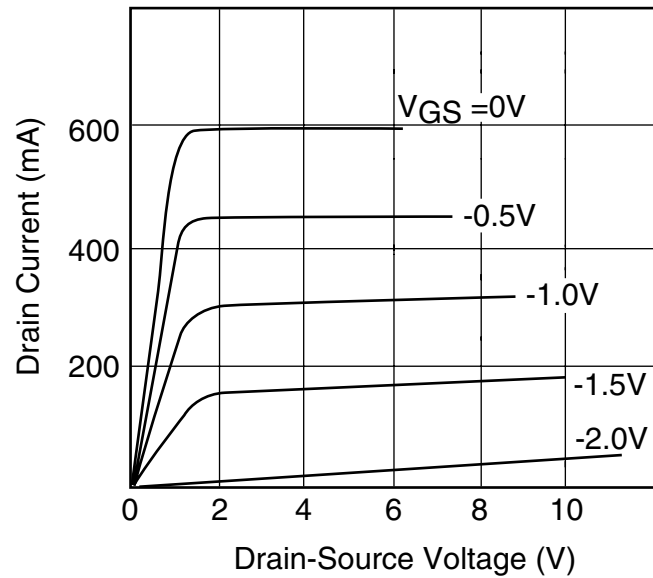
G.C.P.: Gain Compression Point

Note: The RF parameters are measured on a lot basis by sample testing at an AQL = 0.1%, Level-II inspection. Any lot failure shall be 100% retested.

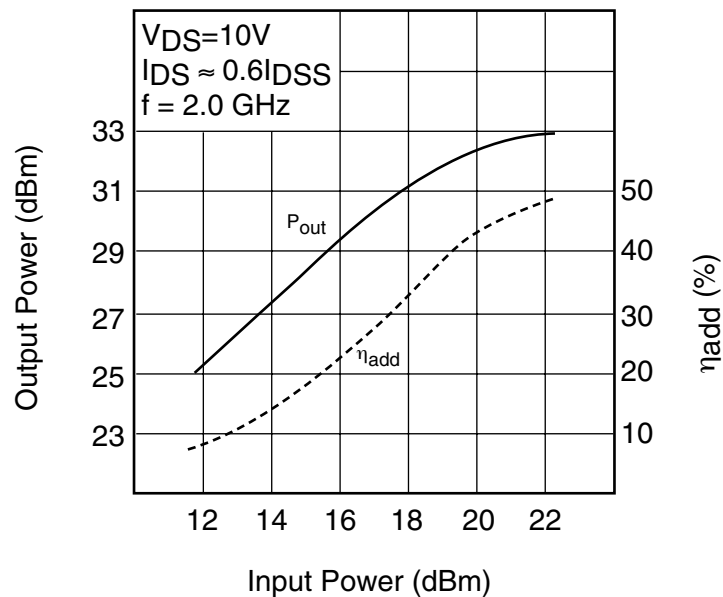
POWER DERATING CURVE

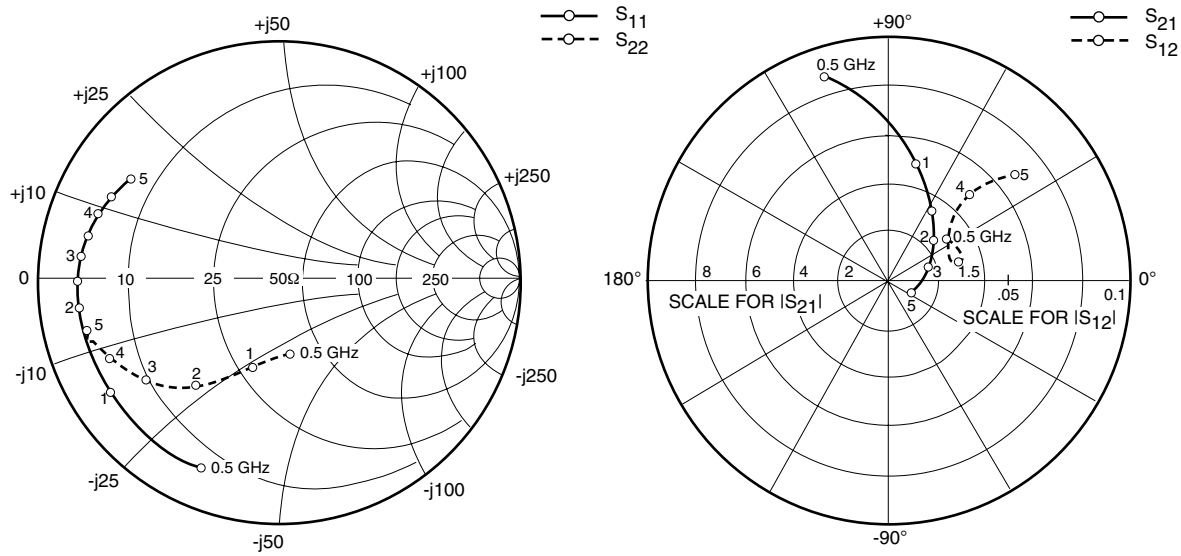


DRAIN CURRENT vs. DRAIN-SOURCE VOLTAGE



OUTPUT POWER vs. INPUT POWER





S-PARAMETERS

$V_{DS} = 10V, I_{DS} = 360mA$

FREQUENCY (MHZ)	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
100	.954	-33.9	16.330	160.4	.012	72.2	.335	-18.7
500	.839	-112.6	8.817	107.9	.028	33.4	.307	-80.7
1000	.831	-146.9	4.930	78.0	.030	18.4	.378	-106.7
1500	.824	-162.5	3.299	58.2	.029	16.6	.472	-118.6
2000	.825	-172.5	2.428	42.0	.027	21.1	.555	-128.3
2500	.825	179.7	1.912	28.1	.028	35.2	.628	-136.0
3000	.820	172.6	1.567	15.2	.032	39.3	.682	-143.3
3500	.809	165.9	1.337	3.3	.038	43.3	.726	-149.3
4000	.794	159.2	1.183	-8.3	.048	45.0	.761	-155.1
4500	.775	152.5	1.079	-19.8	.057	43.5	.790	-160.5
5000	.739	145.5	1.015	-32.1	.067	39.4	.816	-165.9

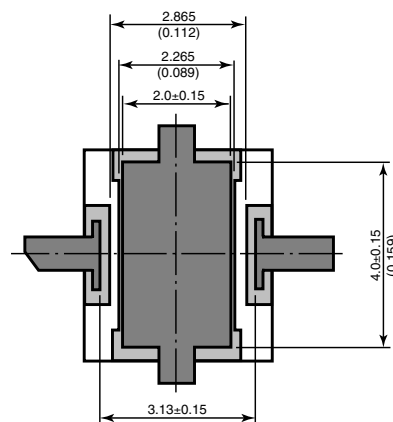
Technical drawing of a mechanical part, showing a top view and a side view. The top view is a square with rounded corners, featuring a central square hole and four rectangular protrusions labeled 1, 2, 3, and 4. The side view shows the profile of the part, including a 45-degree chamfer on the left side. Dimensions are provided in millimeters (mm) and inches (in).

Top View Dimensions:

- Overall width: 3.8 ± 0.15 (0.150)
- Overall height: 4.4 ± 0.15 (0.173)
- Inner square hole side length: 3.35 (0.132)
- Distance from top edge to top protrusion center: 0.5 (0.020)
- Distance from bottom edge to bottom protrusion center: 0.5 (0.020)
- Distance from left edge to left protrusion center: 1.7 ± 0.2 (0.067)
- Distance from right edge to right protrusion center: 0.15 ± 0.05 (0.006)
- Distance from center to left protrusion end: 0.7 (0.028)
- Distance from center to right protrusion end: 0.7 (0.028)
- Distance from center to top protrusion end: 0.7 (0.028)
- Distance from center to bottom protrusion end: 0.7 (0.028)
- Overall width including protrusions: 6.3 (0.248)
- Overall height including protrusions: 4.2 ± 0.1 (0.165)

Side View Dimensions:

- Overall height: 4.2 ± 0.1 (0.165)
- Distance from top edge to top protrusion center: 0.5 (0.020)
- Distance from bottom edge to bottom protrusion center: 0.5 (0.020)
- Distance from left edge to left protrusion center: 1.7 ± 0.2 (0.067)
- Distance from right edge to right protrusion center: 0.15 ± 0.05 (0.006)
- Distance from center to left protrusion end: 0.7 (0.028)
- Distance from center to right protrusion end: 0.7 (0.028)
- Distance from center to top protrusion end: 0.7 (0.028)
- Distance from center to bottom protrusion end: 0.7 (0.028)
- Overall width including protrusions: 6.3 (0.248)
- Overall height including protrusions: 4.2 ± 0.1 (0.165)



1. Gate
2. Source
3. Drain

Unit: mm(inches)