



RF Power LDMOS Transistor

High Ruggedness N-Channel Enhancement-Mode Lateral MOSFET

Designed for handheld two-way radio applications with frequencies from 136 to 941 MHz. The high gain, ruggedness and wideband performance of this device makes it ideal for large-signal, common-source amplifier applications in handheld radio equipment.

Narrowband Performance (7.5 V, I_{DQ} = 100 mA, T_A = 25°C, CW)

Frequency (MHz)	G _{ps} (dB)	η _D (%)	P _{out} (W)
870 ⁽¹⁾	15.2	71.0	7.3

Wideband Performance (7.5 V, P_{in} = 0.25 Watts, T_A = 25°C, CW)

Frequency (MHz)	G _{ps} (dB)	η _D (%)	P _{out} (W)
136–174	14.6	69.0	7.2
450–520 ⁽²⁾	15.0	57.0	7.9
760–860 ⁽³⁾	14.8	51.0	7.5

Load Mismatch/Ruggedness

Frequency (MHz)	Signal Type	VSWR	P _{in} (W)	Test Voltage	Result
870 ⁽¹⁾	CW	>65:1 at all Phase Angles	0.4 (3 dB Overdrive)	10.8	No Device Degradation

1. Measured in 870 MHz narrowband test circuit.
2. Measured in 450–520 MHz UHF broadband reference circuit.
3. Measured in 760–860 MHz broadband reference circuit.

Features

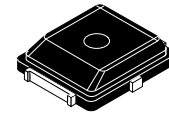
- Characterized for Operation from 136 to 941 MHz
- Unmatched Input and Output Allowing Wide Frequency Range Utilization
- Integrated ESD Protection
- Integrated Stability Enhancements
- Wideband — Full Power Across the Band: 764–870 MHz
- Exceptional Thermal Performance
- Extreme Ruggedness
- High Linearity for: TETRA, SSB
- Cost-effective Over-molded Plastic Packaging
- In Tape and Reel. T1 Suffix = 1000 Units, 16 mm Tape Width, 13-inch Reel.

Typical Applications

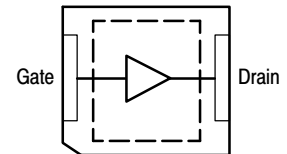
- Output Stage VHF Band Handheld Radio
- Output Stage UHF Band Handheld Radio
- Output Stage for 700–800 MHz Handheld Radio

AFT09MS007NT1

**136–941 MHz, 7 W, 7.5 V
WIDEBAND
RF POWER LDMOS TRANSISTOR**



**PLD-1.5W
PLASTIC**



Note: The center pad on the backside of the package is the source terminal for the transistor.

Figure 1. Pin Connections

Table 1. Maximum Ratings

Rating	Symbol	Value	Unit
Drain–Source Voltage	V_{DSS}	–0.5, +30	Vdc
Gate–Source Voltage	V_{GS}	–6.0, +12	Vdc
Operating Voltage	V_{DD}	12.5, +0	Vdc
Storage Temperature Range	T_{stg}	–65 to +150	°C
Operating Junction Temperature (1,2)	T_J	150	°C
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	182 0.91	W W/°C

Table 2. Thermal Characteristics

Characteristic	Symbol	Value (2,3)	Unit
Thermal Resistance, Junction to Case Case Temperature 74°C, 7 W CW, 7.5 Vdc, $I_{DQ} = 100$ mA, 870 MHz	$R_{\theta JC}$	1.1	°C/W

Table 3. ESD Protection Characteristics

Test Methodology	Class
Human Body Model (per JESD22–A114)	2, passes 2500 V
Machine Model (per EIA/JESD22–A115)	B, passes 200 V
Charge Device Model (per JESD22–C101)	IV, passes 2000 V

Table 4. Moisture Sensitivity Level

Test Methodology	Rating	Package Peak Temperature	Unit
Per JESD22–A113, IPC/JEDEC J–STD–020	3	260	°C

Table 5. Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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Off Characteristics

Zero Gate Voltage Drain Leakage Current ($V_{DS} = 30$ Vdc, $V_{GS} = 0$ Vdc)	I_{DSS}	—	—	10	μAdc
Zero Gate Voltage Drain Leakage Current ($V_{DS} = 7.5$ Vdc, $V_{GS} = 0$ Vdc)	I_{DSS}	—	—	2	μAdc
Gate–Source Leakage Current ($V_{GS} = 5$ Vdc, $V_{DS} = 0$ Vdc)	I_{GSS}	—	—	1	nAdc

On Characteristics

Gate Threshold Voltage ($V_{DS} = 10$ Vdc, $I_D = 110$ μAdc)	$V_{GS(th)}$	1.6	2.1	2.6	Vdc
Drain–Source On–Voltage ($V_{GS} = 10$ Vdc, $I_D = 1.1$ Adc)	$V_{DS(on)}$	—	0.12	—	Vdc
Forward Transconductance ($V_{DS} = 7.5$ Vdc, $I_D = 3$ Adc)	g_{fs}	—	9.8	—	S

Dynamic Characteristics

Reverse Transfer Capacitance ($V_{DS} = 7.5$ Vdc ± 30 mV(rms)ac @ 1 MHz, $V_{GS} = 0$ Vdc)	C_{rss}	—	2.7	—	pF
Output Capacitance ($V_{DS} = 7.5$ Vdc ± 30 mV(rms)ac @ 1 MHz, $V_{GS} = 0$ Vdc)	C_{oss}	—	56	—	pF
Input Capacitance ($V_{DS} = 7.5$ Vdc, $V_{GS} = 0$ Vdc ± 30 mV(rms)ac @ 1 MHz)	C_{iss}	—	107	—	pF

1. Continuous use at maximum temperature will affect MTTF.
2. MTTF calculator available at <http://www.freescale.com/rf>. Select Software & Tools/Development Tools/Calculators to access MTTF calculators by product.
3. Refer to AN1955, *Thermal Measurement Methodology of RF Power Amplifiers*. Go to <http://www.freescale.com/rf>. Select Documentation/Application Notes – AN1955.

(continued)

Table 5. Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted) **(continued)**

Characteristic	Symbol	Min	Typ	Max	Unit
Functional Tests (In Freescale Test Fixture, 50 ohm system) $V_{DD} = 7.5$ Vdc, $I_{DQ} = 100$ mA, $P_{in} = 0.22$ W, $f = 870$ MHz					
Common-Source Amplifier Output Power	P_{out}	—	7.3	—	W
Drain Efficiency	η_D	—	71.0	—	%
Load Mismatch/Ruggedness (In Freescale Test Fixture, 50 ohm system) $I_{DQ} = 100$ mA					
Frequency (MHz)	Signal Type	VSWR	P_{in} (W)	Test Voltage, V_{DD}	Result
870	CW	>65:1 at all Phase Angles	0.4 (3 dB Overdrive)	10.8	No Device Degradation

TYPICAL CHARACTERISTICS

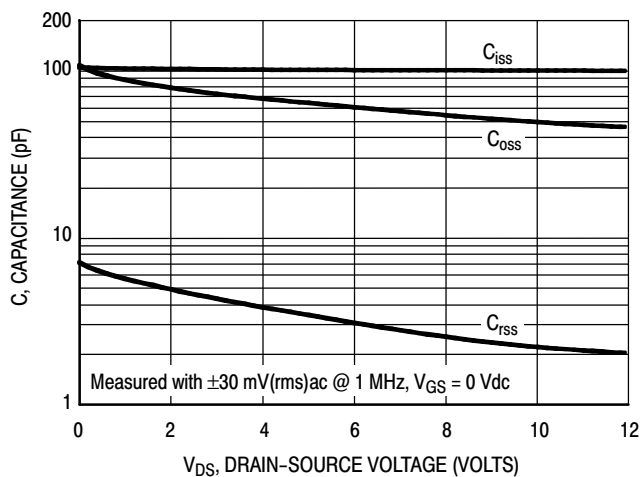


Figure 2. Capacitance versus Drain-Source Voltage

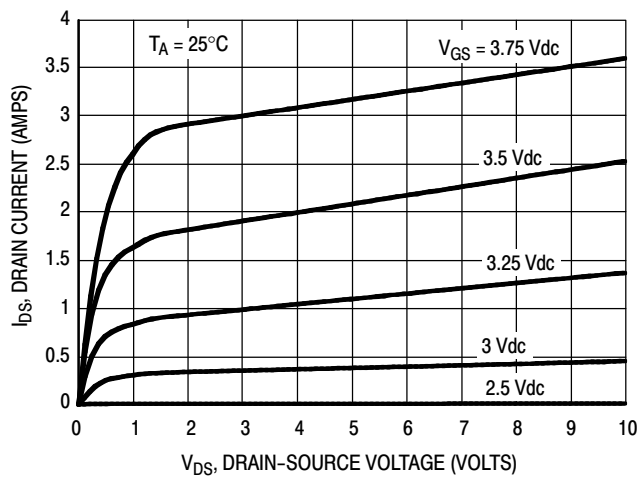
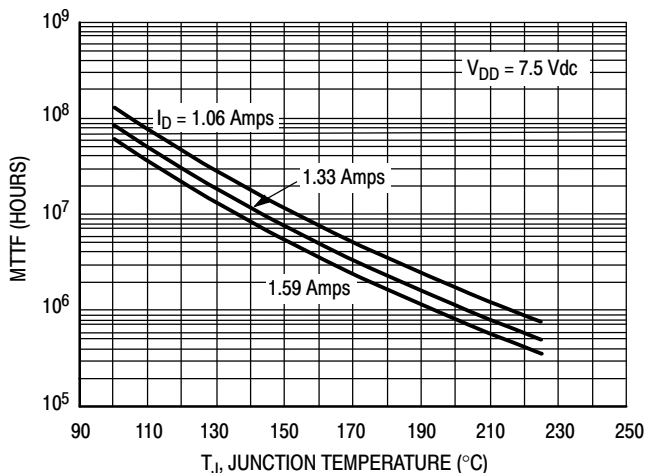


Figure 3. Drain Current versus Drain-Source Voltage

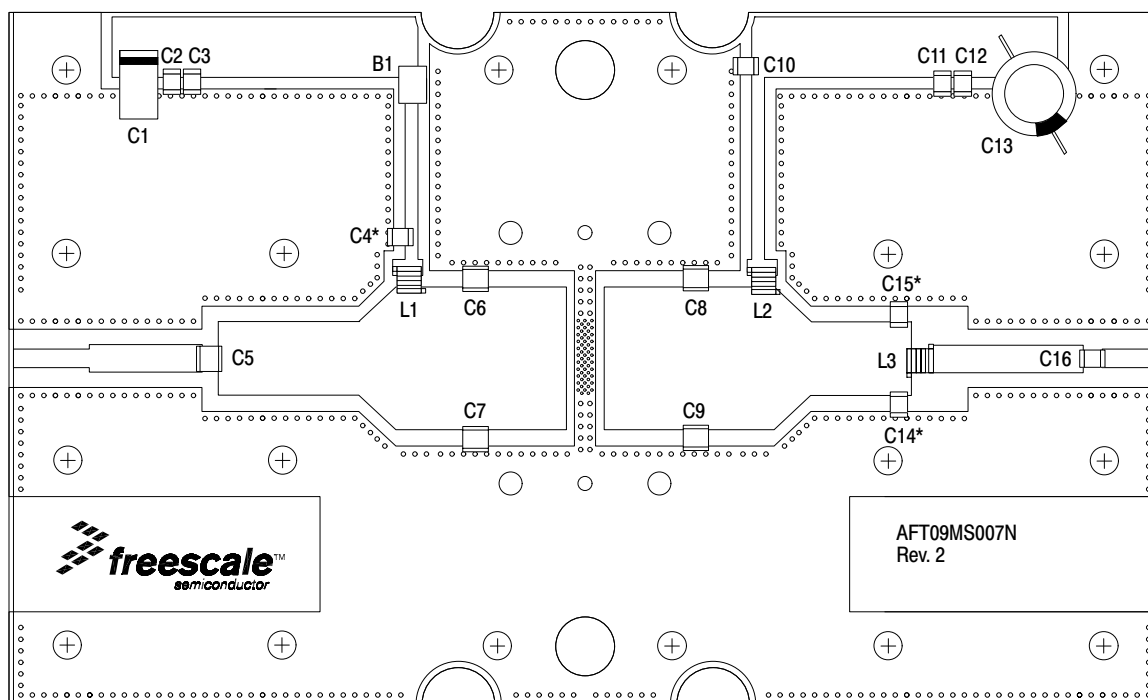


Note: MTTF value represents the total cumulative operating time under indicated test conditions.

MTTF calculator available at <http://www.freescale.com/rf>. Select Software & Tools/Development Tools/Calculators to access MTTF calculators by product.

Figure 4. MTTF versus Junction Temperature – CW

870 MHz NARROWBAND PRODUCTION TEST FIXTURE



*C4, C14 and C15 are mounted vertically.

Figure 5. AFT09MS007NT1 Narrowband Test Circuit Component Layout — 870 MHz

Table 6. AFT09MS007NT1 Narrowband Test Circuit Component Designations and Values — 870 MHz

Part	Description	Part Number	Manufacturer
B1	RF Bead, Short	2743019447	Fair-Rite
C1	22 μ F, 35 V Tantalum Capacitor	T491X226K035AT	Kemet
C2, C12	0.1 μ F Chip Capacitors	CDR33BX104AKWS	Kemet
C3, C11	0.01 μ F Chip Capacitors	C0805C103K5RAC	Kemet
C4, C10, C16	56 pF Chip Capacitors	ATC100B560CT500XT	ATC
C5	3.9 pF Chip Capacitor	ATC100B3R9CT500XT	ATC
C6, C7	7.5 pF Chip Capacitors	ATC100B7R5CT500XT	ATC
C8, C9	6.8 pF Chip Capacitors	ATC100B6R8CT500XT	ATC
C13	330 μ F, 35 V Electrolytic Capacitor	MCGPR35V337M10X16-RH	Multicomp
C14, C15	3.6 pF Chip Capacitors	ATC100B3R6CT500XT	ATC
L1	8.0 nH Inductor	A03TKLC	Coilcraft
L2	18.5 nH Inductor	A05TKLC	Coilcraft
L3	5.0 nH Inductor	A02TKLC	Coilcraft
PCB	0.030", $\epsilon_r = 3.50$	RO4350B	Rogers

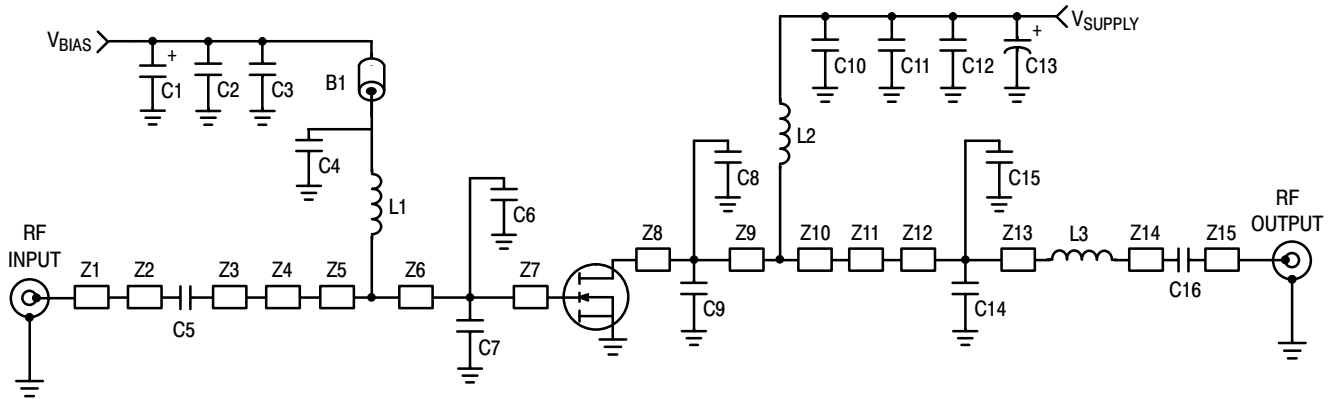


Figure 6. AFT09MS007NT1 Narrowband Test Circuit Schematic — 870 MHz

Table 7. AFT09MS007NT1 Narrowband Test Circuit Microstrips — 870 MHz

Microstrip	Description
Z1	0.328" × 0.080" Microstrip
Z2	0.490" × 0.120" Microstrip
Z3	0.610" × 0.320" Microstrip
Z4	0.160" × 0.320" × 0.620" Taper
Z5	0.058" × 0.620" Microstrip
Z6	0.288" × 0.620" Microstrip
Z7	0.394" × 0.620" Microstrip
Z8	0.398" × 0.620" Microstrip

Microstrip	Description
Z9	0.295" × 0.620" Microstrip
Z10	0.046" × 0.620" Microstrip
Z11	0.159" × 0.620" × 0.320" Taper
Z12	0.379" × 0.320" Microstrip
Z13	0.055" × 0.320" Microstrip
Z14	0.665" × 0.120" Microstrip
Z15	0.238" × 0.080" Microstrip

TYPICAL CHARACTERISTICS — 870 MHz

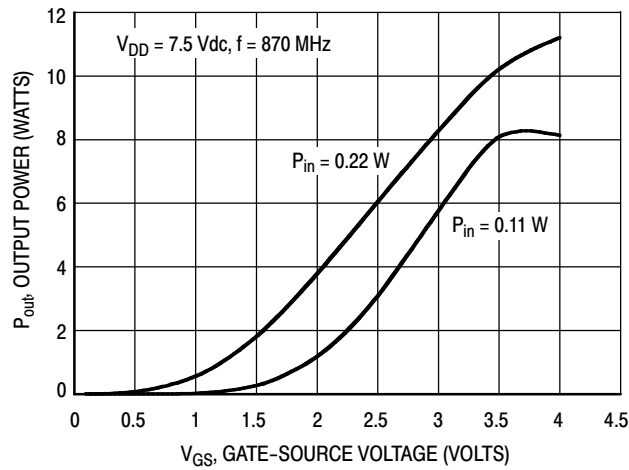


Figure 7. Output Power versus Gate-Source Voltage at a Constant Input Power

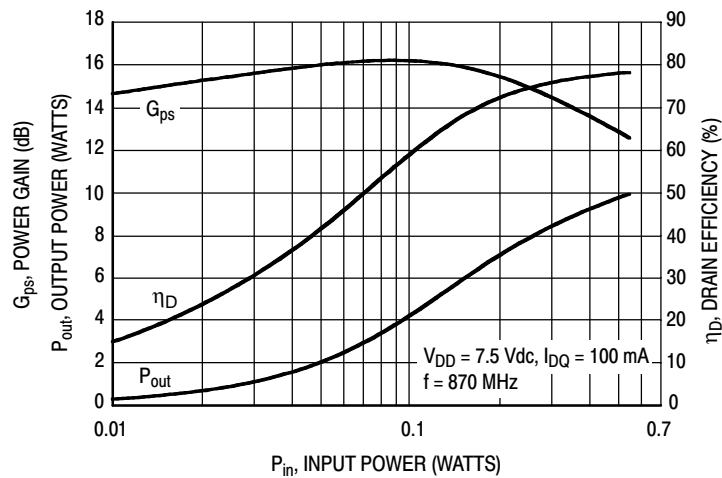


Figure 8. Power Gain, Output Power and Drain Efficiency versus Input Power

$V_{DD} = 7.5 \text{ Vdc}$, $I_{DQ} = 100 \text{ mA}$, $P_{out} = 7 \text{ W Avg.}$

f MHz	Z_{source} Ω	Z_{load} Ω
870	$0.54 + j1.35$	$1.31 + j1.93$

Z_{source} = Test circuit impedance as measured from gate to ground.

Z_{load} = Test circuit impedance as measured from drain to ground.

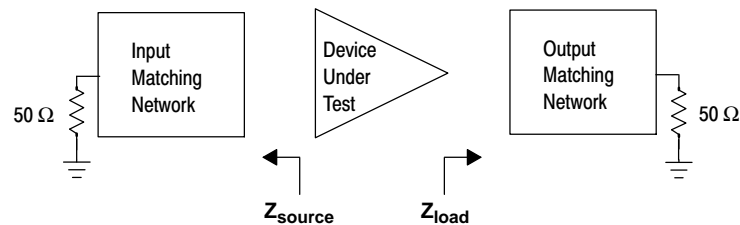


Figure 9. Narrowband Series Equivalent Source and Load Impedance — 870 MHz

450–520 MHz UHF BROADBAND REFERENCE CIRCUIT

Table 8. 450–520 MHz UHF Broadband Performance (In Freescale Reference Circuit, 50 ohm system)

$V_{DD} = 7.5$ Volts, $I_{DQ} = 150$ mA, $P_{out} = 7.5$ Watts, $T_A = 25^\circ\text{C}$, CW

Frequency (MHz)	G_{ps} (dB)	η_D (%)	P_{out} (W)
450	15.4	57.7	7.5
485	15.5	56.0	7.5
520	16.2	66.3	7.5

Table 9. Load Mismatch/Ruggedness (In Freescale Reference Circuit)

Frequency (MHz)	Signal Type	VSWR	P_{in} (W)	Test Voltage, V_{DD}	Result
520	CW	>65:1 at all Phase Angles	0.2 (3 dB Overdrive)	9.0	No Device Degradation

450–520 MHz UHF BROADBAND REFERENCE CIRCUIT

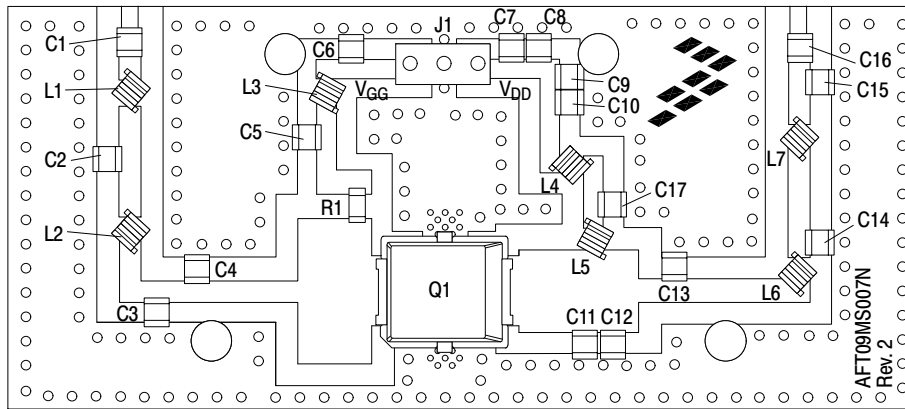


Figure 10. AFT09MS007NT1 UHF Broadband Reference Circuit Component Layout — 450–520 MHz

Table 10. AFT09MS007NT1 UHF Broadband Reference Circuit Component Designations and Values — 450–520 MHz

Part	Description	Part Number	Manufacturer
C1, C16	100 pF Chip Capacitors	600F101JT250XT	ATC
C2	7.5 pF Chip Capacitor	GQM2195C2E7R5BB12D	Murata
C3	5.6 pF Chip Capacitor	ATC600F5R6BT250XT	ATC
C4	39 pF Chip Capacitor	ATC600F390JT250XT	ATC
C5, C9	240 pF Chip Capacitors	ATC600F241JT250XT	ATC
C6, C7	0.1 μF Chip Capacitors	GRM21BR71H104KA01B	Murata
C8	0.01 μF Chip Capacitor	GRM21BR72A103KA01B	Murata
C10	2.2 μF Chip Capacitor	GRM31CR71H225KA88L	Murata
C11, 12	12 pF Chip Capacitors	ATC600F120JT250XT	ATC
C13	8.2 pF Chip Capacitor	ATC600F8R2BT250XT	ATC
C14	20 pF Chip Capacitor	ATC600F200JT250XT	ATC
C15	2 pF Chip Capacitor	ATC600F2R0BT250XT	ATC
C17	47 pF Chip Capacitor	ATC600F470JT250XT	ATC
J1	3-pin Header	22-28-8360	Molex
L1	2.55 nH Inductor	0906-3JLC	Coilcraft
L2	3.85 nH Inductor	0906-4JLC	Coilcraft
L3	22 nH Inductor	0908SQ22N	Coilcraft
L4, L5	17 nH Inductors	0908SQ17N	Coilcraft
L6	1.65 nH Inductor	0906-2JLC	Coilcraft
L7	8.1 nH Inductor	0908SQ8R1N	Coilcraft
R1	22 Ω, 1/10 W Chip Resistor	RR1220Q-220-D	Susumu
Q1	RF Power LD MOS Transistor	AFT09MS007N	Freescale
PCB	0.020", ε _r = 4.8	S1000-2	Shengyi

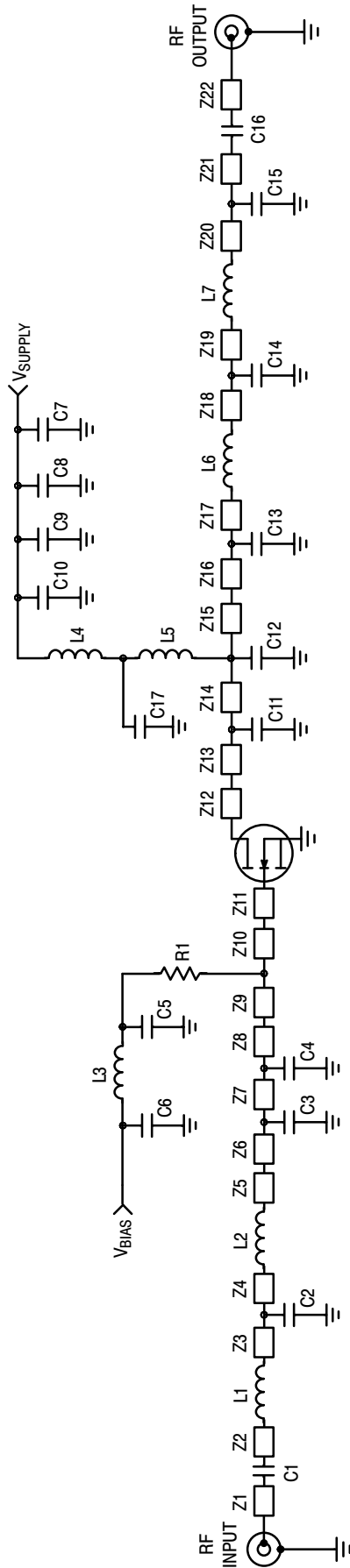


Figure 11. AFT09MS007NT1 UHF Broadband Reference Circuit Schematic — 450–520 MHz

Table 11. AFT09MS007NT1 UHF Broadband Reference Circuit Microstrips — 450–520 MHz

Microstrip	Description	Microstrip	Description	Microstrip	Description
Z1	0.060" × 0.034" Microstrip	Z9	0.121" × 0.300" Microstrip	Z16	0.075" × 0.049" Microstrip
Z2	0.052" × 0.046" Microstrip	Z10	0.031" × 0.300" Microstrip	Z17	0.279" × 0.049" Microstrip
Z3	0.110" × 0.046" Microstrip	Z11	0.070" × 0.146" Microstrip	Z18	0.032" × 0.046" Microstrip
Z4	0.118" × 0.046" Microstrip	Z12	0.070" × 0.146" Microstrip	Z19	0.195" × 0.046" Microstrip
Z5	0.084" × 0.046" Microstrip	Z13	0.138" × 0.170" Microstrip	Z20	0.089" × 0.046" Microstrip
Z6	0.124" × 0.046" Microstrip	Z14	0.055" × 0.170" Microstrip	Z21	0.046" × 0.046" Microstrip
Z7	0.084" × 0.046" Microstrip	Z15	0.055" × 0.170" Microstrip	Z22	0.060" × 0.034" Microstrip
Z8	0.207" × 0.046" Microstrip				

TYPICAL CHARACTERISTICS — 450–520 MHz UHF BROADBAND REFERENCE CIRCUIT

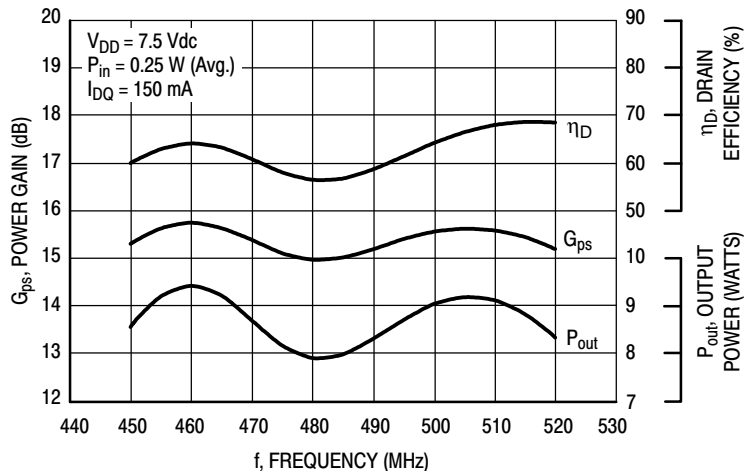


Figure 12. Power Gain, Output Power and Drain Efficiency versus Frequency at a Constant Input Power — 7.5 V

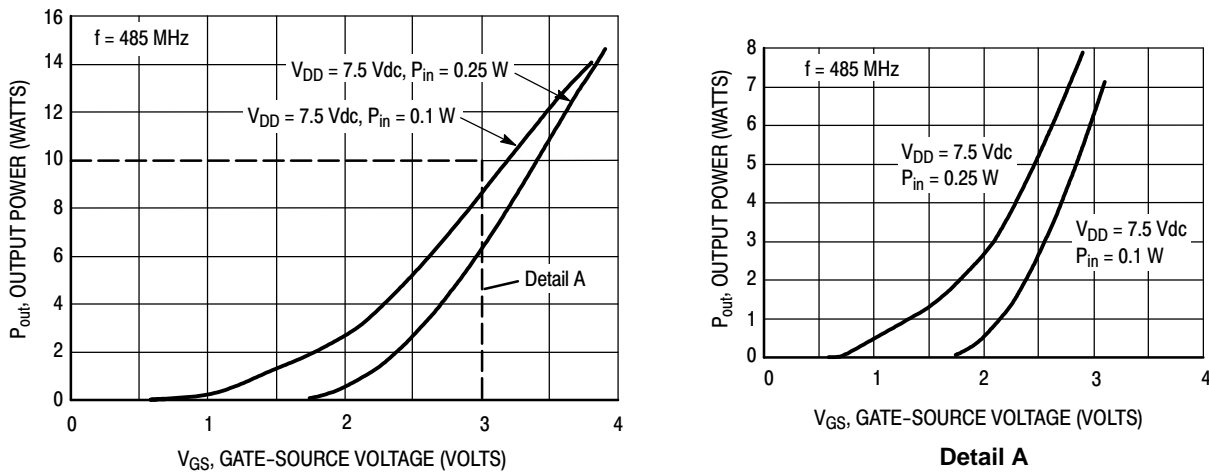


Figure 13. Output Power versus Gate-Source Voltage

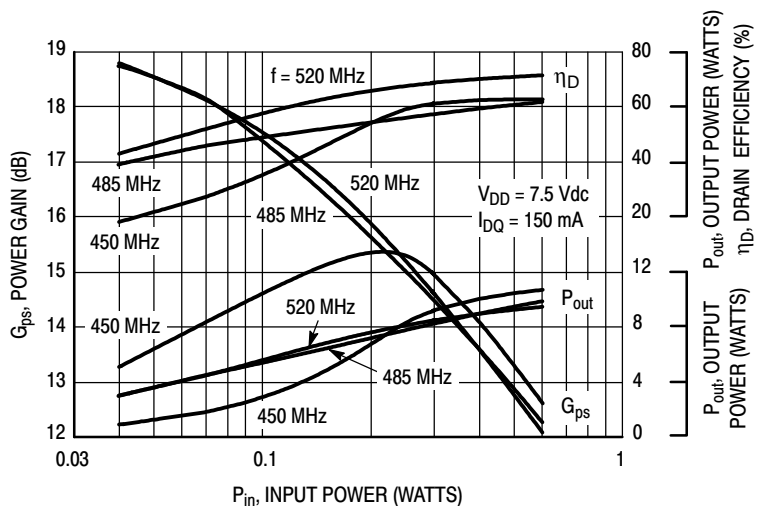
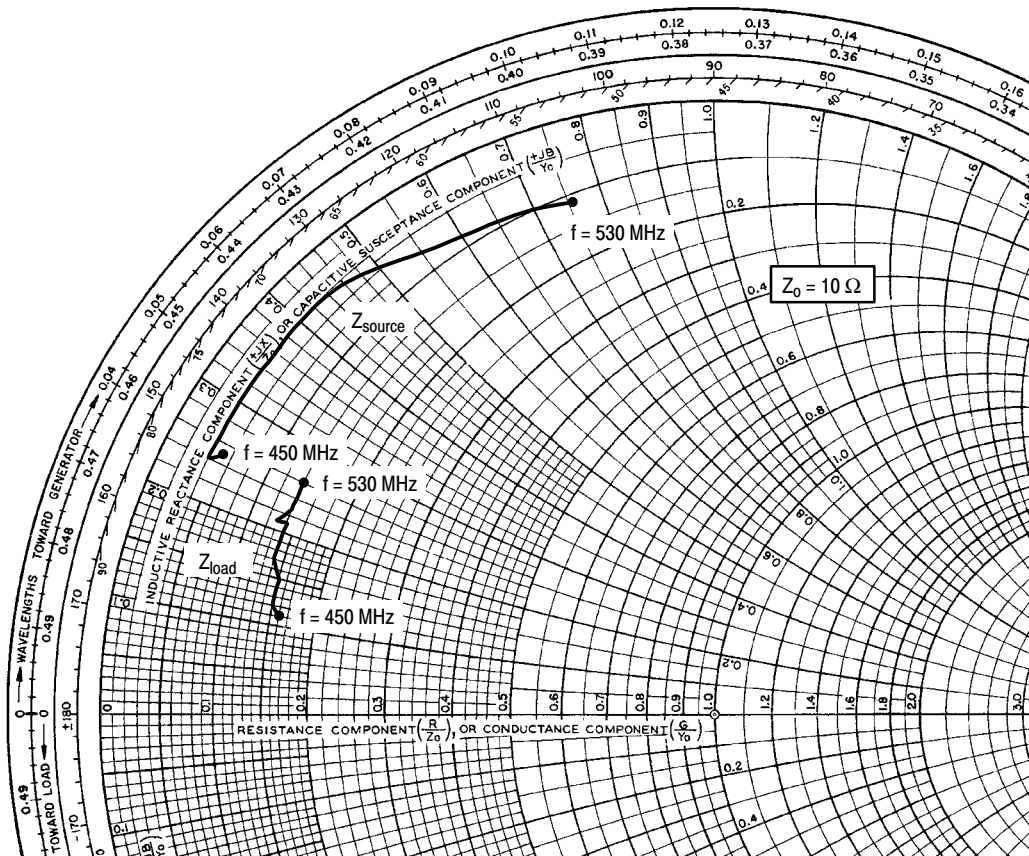


Figure 14. Power Gain, Output Power and Drain Efficiency versus Input Power and Frequency

450–520 MHz UHF BROADBAND REFERENCE CIRCUIT



$V_{DD} = 7.5 \text{ Vdc}$, $I_{DQ} = 150 \text{ mA}$, $P_{out} = 7.5 \text{ W Avg.}$

f MHz	Z_{source} Ω	Z_{load} Ω
450	$0.45 + j2.46$	$1.56 + j1.05$
460	$0.40 + j2.37$	$1.52 + j1.24$
470	$0.40 + j2.97$	$1.46 + j1.51$
480	$0.38 + j3.56$	$1.39 + j1.71$
490	$0.41 + j4.16$	$1.35 + j2.06$
500	$0.51 + j4.79$	$1.34 + j2.06$
510	$0.70 + j5.54$	$1.37 + j2.30$
520	$0.93 + j6.44$	$1.40 + j2.50$
530	$1.14 + j7.56$	$1.42 + j2.62$

Z_{source} = Test circuit impedance as measured from gate to ground.

Z_{load} = Test circuit impedance as measured from drain to ground.

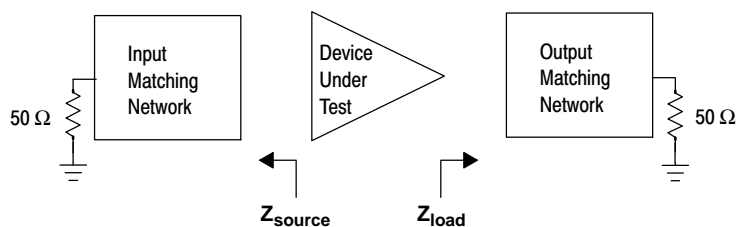


Figure 15. UHF Broadband Series Equivalent Source and Load Impedance — 450–520 MHz

760–860 MHz BROADBAND REFERENCE CIRCUIT

Table 12. 760–860 MHz Broadband Performance (In Freescale Reference Circuit, 50 ohm system)

$V_{DD} = 7.5$ Volts, $I_{DQ} = 150$ mA, $P_{out} = 7.0$ Watts, $T_A = 25^\circ\text{C}$, CW

Frequency (MHz)	G_{ps} (dB)	η_D (%)	P_{out} (W)
760	15.3	48.1	7.0
810	16.3	54.1	7.0
860	15.1	59.5	7.0

Table 13. Load Mismatch/Ruggedness (In Freescale Reference Circuit)

Frequency (MHz)	Signal Type	VSWR	P_{in} (W)	Test Voltage, V_{DD}	Result
810	CW	>65:1 at all Phase Angles	0.5 (3 dB Overdrive)	9.0	No Device Degradation

760–860 MHz BROADBAND REFERENCE CIRCUIT

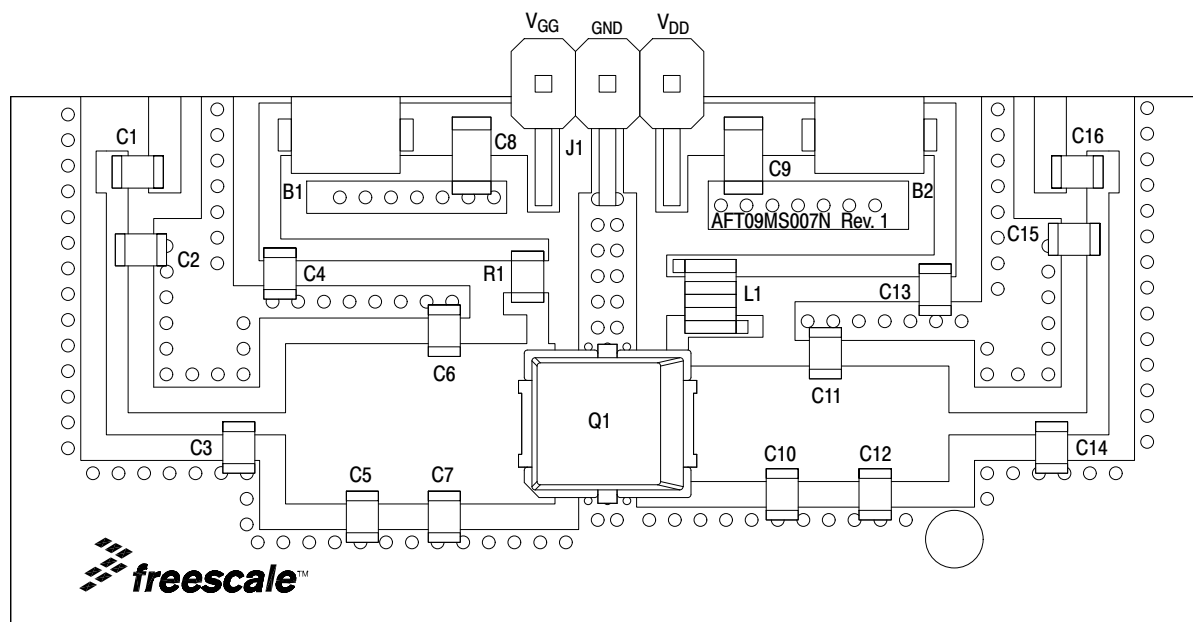


Figure 16. AFT09MS007NR1 Broadband Reference Circuit Component Layout — 760–860 MHz

Table 14. AFT09MS007NR1 Broadband Reference Circuit Component Designations and Values — 760–860 MHz

Part	Description	Part Number	Manufacturer
B1, B2	RF Beads	2743019447	Fair-Rite
C1	10 pF Chip Capacitor	GQM2195C2E100FB15	Murata
C2	3.9 pF Chip Capacitor	GQM2195C2E3R9BB15	Murata
C3	7.5 pF Chip Capacitor	GQM2195C2E7R5BB15	Murata
C4, C13, C16	100 pF Chip Capacitors	GQM2195C2E101GB15	Murata
C5	8.2 pF Chip Capacitor	GQM2195C2E8R2BB15	Murata
C6, C7	20 pF Chip Capacitors	GQM2195C2E200GB15	Murata
C8	1 μ F Chip Capacitor	GRM31MR71H105KA88L	Murata
C9	10 μ F Chip Capacitor	GRM31CR61H106KA12L	Murata
C10, C11	12 pF Chip Capacitors	GQM2195C2E120FB15	Murata
C12	5.1 pF Chip Capacitor	GQM2195C2E5R1BB15	Murata
C14	4.7 pF Chip Capacitor	GQM2195C2E4R7BB15	Murata
C15	3.9 pF Chip Capacitor	GQM2195C2E3R9BB15	Murata
J1	3-pin Header	22-28-8360	Molex
L1	22 nH Inductor	0908SQ-22NJL	Coilcraft
Q1	RF Power LDMOS Transistor	AFT09MS007N	Freescale
R1	200 Ω Chip Resistor	CRCW0805200RJNEA	Vishay
PCB	0.020", $\epsilon_r = 4.8$	S1000-2	Shengyi

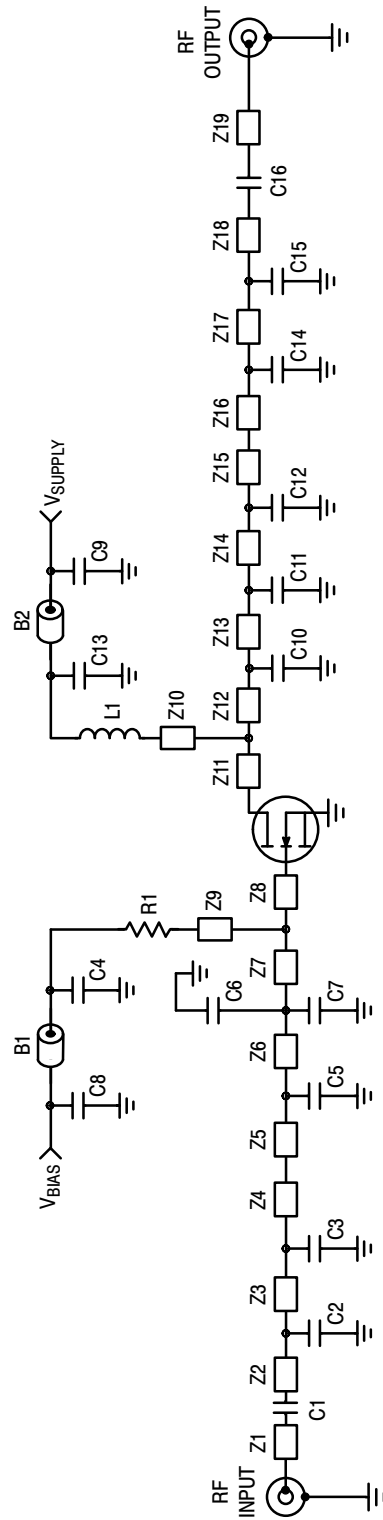


Figure 17. AFT09MS007NT1 Broadband Reference Circuit Schematic — 760–860 MHz

Table 15. AFT09MS007NT1 Broadband Reference Circuit Microstrips — 760–860 MHz

Microstrip	Description	Microstrip	Description	Microstrip	Description
Z1	0.150" x 0.050" Microstrip	Z8	0.027" x 0.250" Microstrip	Z15	0.115" x 0.180" Microstrip
Z2	0.120" x 0.034" Microstrip	Z9	0.066" x 0.034" Microstrip	Z16	0.160" x 0.034" Microstrip
Z3	0.460" x 0.034" Microstrip	Z10	0.110" x 0.034" Microstrip	Z17	0.360" x 0.034" Microstrip
Z4	0.073" x 0.034" Microstrip	Z11	0.027" x 0.180" Microstrip	Z18	0.105" x 0.034" Microstrip
Z5	0.120" x 0.250" Microstrip	Z12	0.163" x 0.180" Microstrip	Z19	0.150" x 0.050" Microstrip
Z6	0.128" x 0.250" Microstrip	Z13	0.068" x 0.180" Microstrip		
Z7	0.145" x 0.250" Microstrip	Z14	0.077" x 0.180" Microstrip		

* Line length includes microstrip bends.

TYPICAL CHARACTERISTICS — 760–860 MHz BROADBAND REFERENCE CIRCUIT

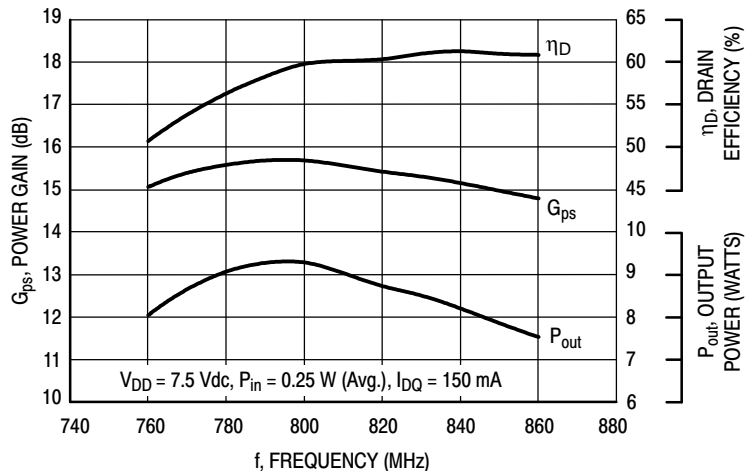


Figure 18. Power Gain, Output Power and Drain Efficiency versus Frequency at a Constant Input Power — 7.5 V

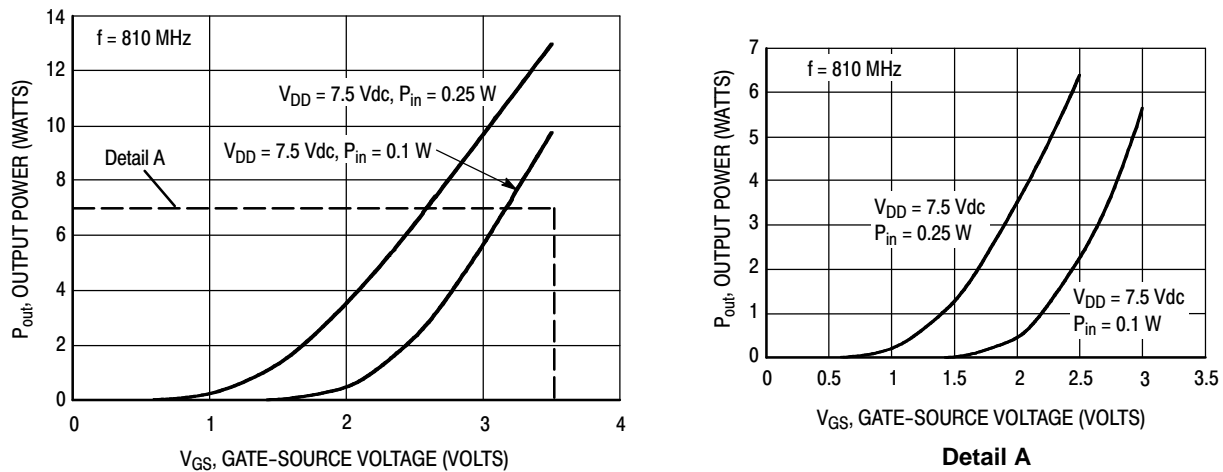


Figure 19. Output Power versus Gate-Source Voltage

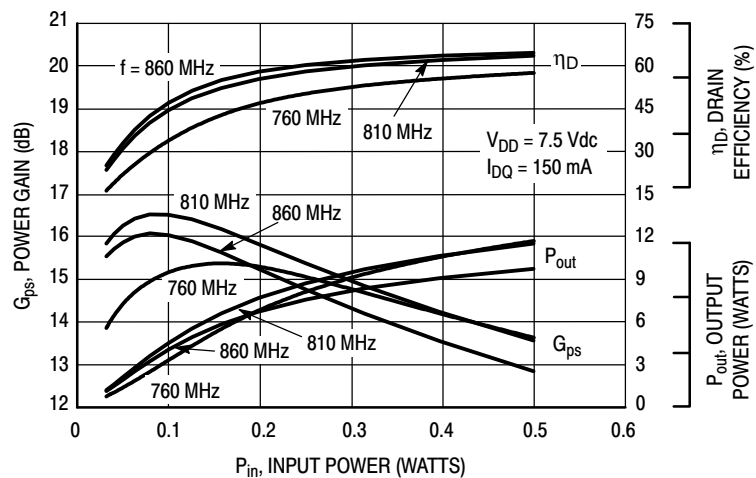
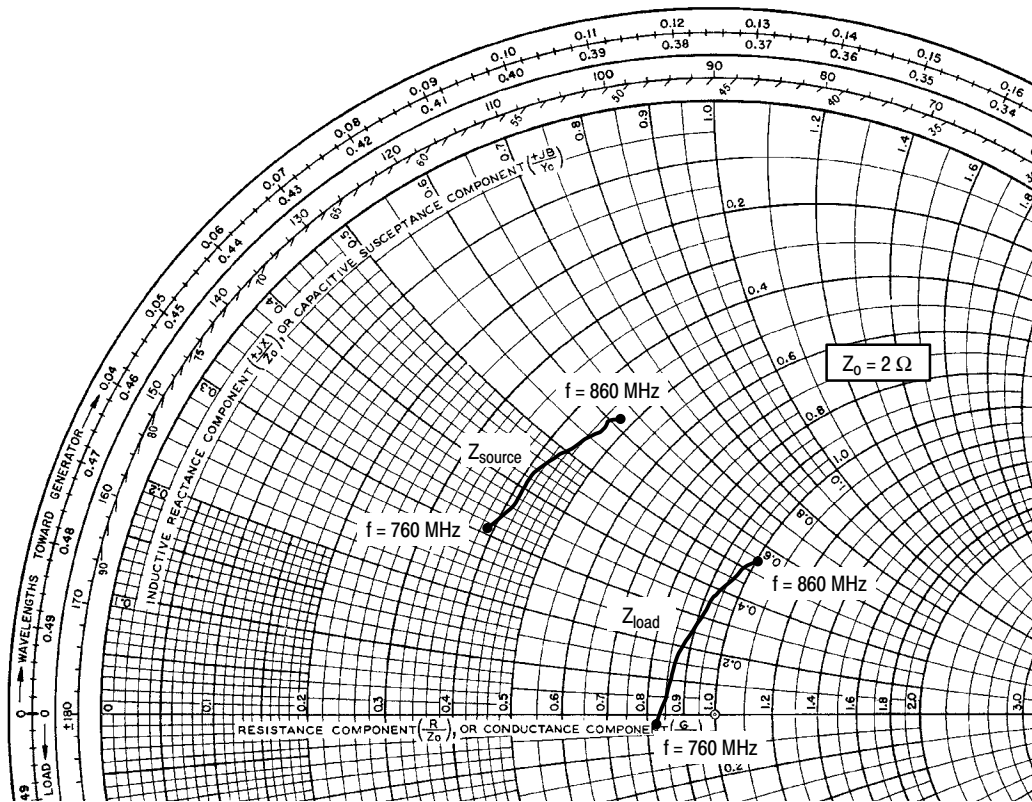


Figure 20. Power Gain, Output Power and Drain Efficiency versus Input Power and Frequency

760–860 MHz BROADBAND REFERENCE CIRCUIT



$V_{DD} = 7.5 \text{ Vdc}$, $I_{DQ} = 150 \text{ mA}$, $P_{out} = 7 \text{ W Avg.}$

f MHz	Z_{source} Ω	Z_{load} Ω
760	$0.77 + j0.62$	$1.65 - j0.04$
770	$0.81 + j0.71$	$1.70 + j0.10$
780	$0.81 + j0.79$	$1.72 + j0.24$
790	$0.82 + j0.85$	$1.74 + j0.36$
800	$0.84 + j0.92$	$1.77 + j0.49$
810	$0.85 + j0.98$	$1.81 + j0.61$
820	$0.88 + j1.02$	$1.84 + j0.69$
830	$0.89 + j1.07$	$1.87 + j0.79$
840	$0.91 + j1.13$	$1.91 + j0.90$
850	$0.91 + j1.19$	$1.93 + j0.99$
860	$0.94 + j1.23$	$1.99 + j1.08$

Z_{source} = Test circuit impedance as measured from gate to ground.

Z_{load} = Test circuit impedance as measured from drain to ground.

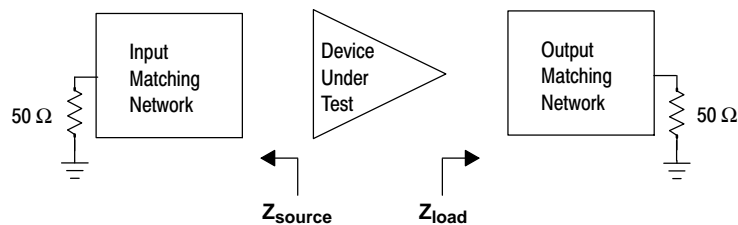


Figure 21. Broadband Series Equivalent Source and Load Impedance — 760–860 MHz

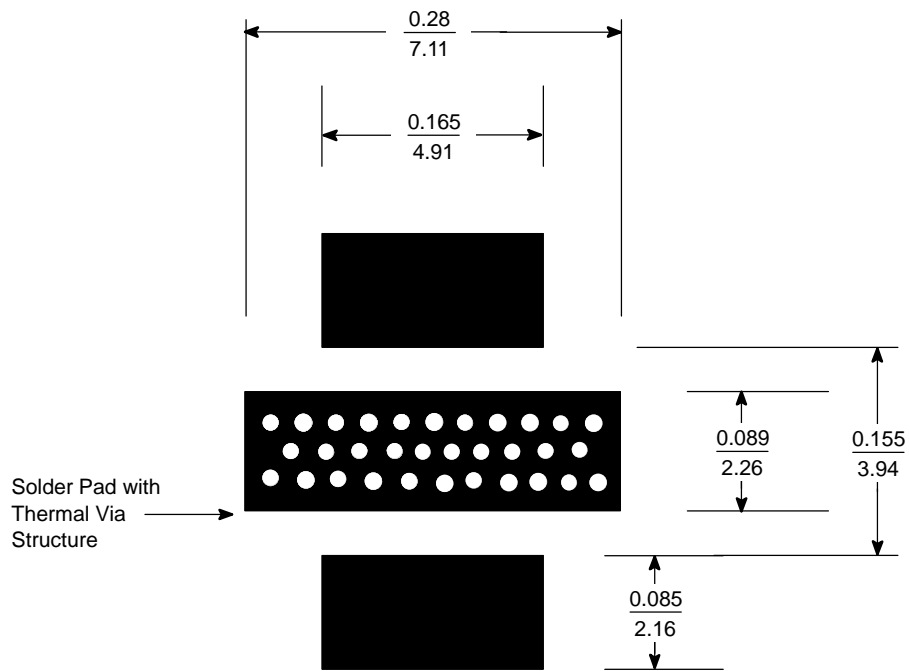


Figure 22. PCB Pad Layout for PLD-1.5W

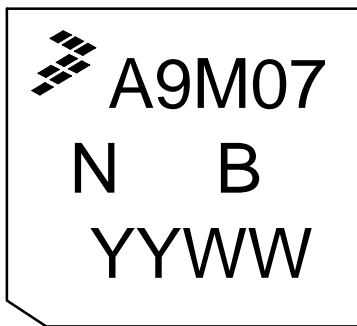
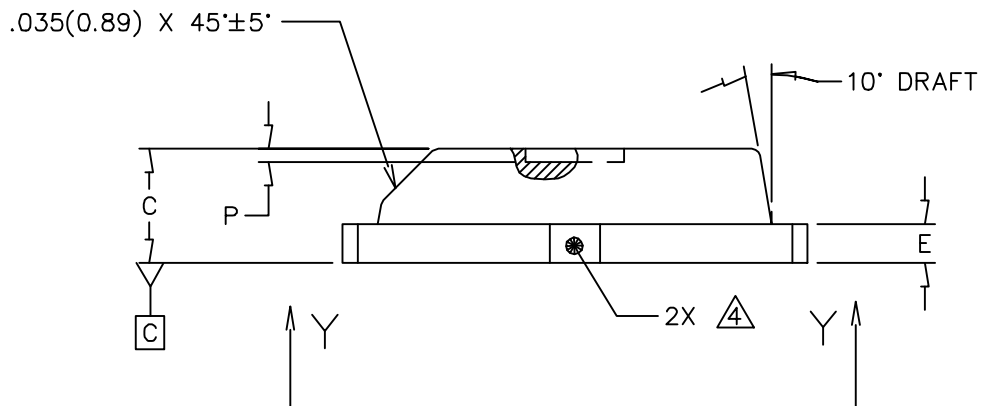
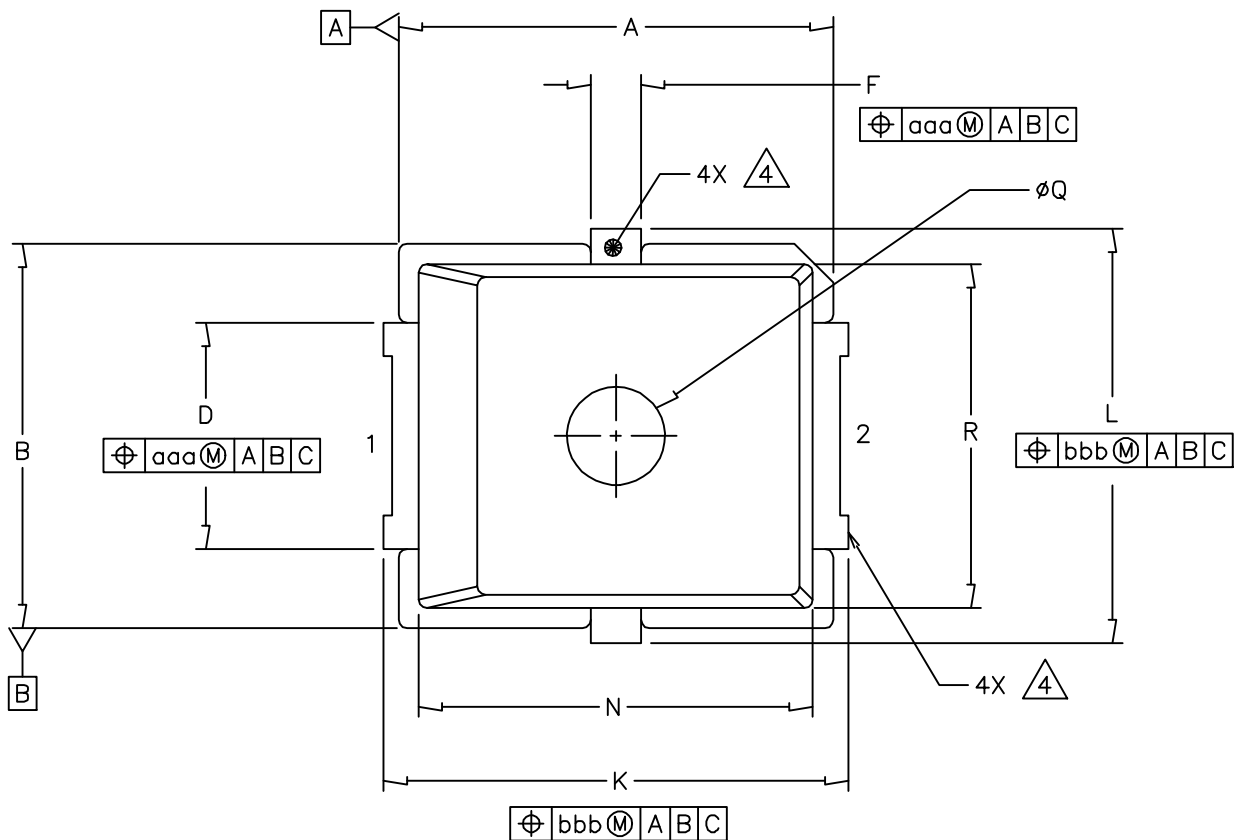
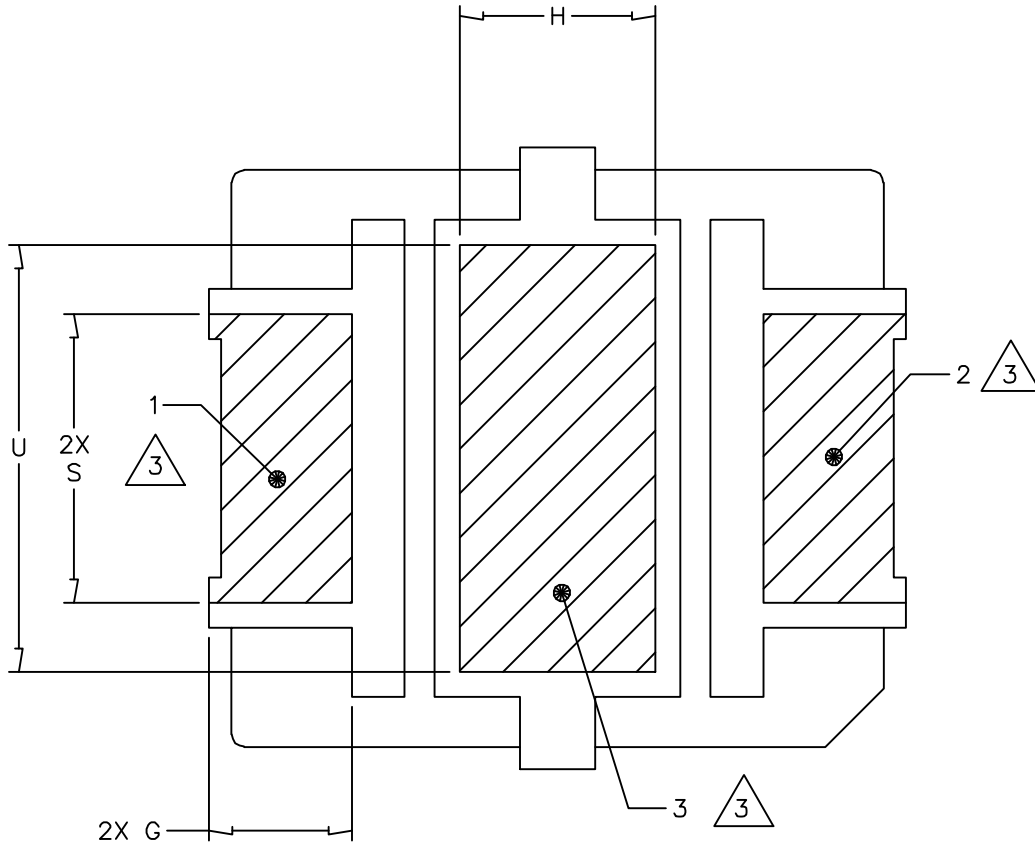


Figure 23. Product Marking

PACKAGE DIMENSIONS





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<p>TITLE: PLD-1.5W</p>	<p>DOCUMENT NO: 98ASA00476D</p>	<p>REV: 0</p>	
	<p>CASE NUMBER: 2297-01</p>	<p>14 JUN 2012</p>	
	<p>STANDARD: NON-JEDEC</p>		



VIEW Y-Y

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		CASE NUMBER: 2297-01	14 JUN 2012
		STANDARD: NON-JEDEC	

NOTES:

1. CONTROLLING DIMENSION: INCH.
2. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
3.  HATCHING REPRESENTS THE EXPOSED AND SOLDERABLE AREA. DIMENSIONS G, S, H AND U REPRESENT THE VALUES BETWEEN THE TWO OPPOSITE POINTS ALONG THE EDGES OF EXPOSED AREA.
4.  THESE SURFACES ARE NOT PART OF THE SOLDERABLE SURFACES AND MAY REMAIN UNPLATED.

DIM	INCH		MILLIMETER		DIM	INCH		MILLIMETER	
	MIN	MAX	MIN	MAX		MIN	MAX	MIN	MAX
A	.255	.265	6.48	6.73	Q	.055	.063	1.40	1.60
B	.225	.235	5.72	5.97	R	.200	.210	5.08	5.33
C	.065	.072	1.65	1.83	S	.110	—	2.79	—
D	.130	.150	3.30	3.81	U	.156	—	3.96	—
E	.021	.026	0.53	0.66	aaa	.004		0.10	
F	.026	.044	0.66	1.12	bbb	.005		0.13	
G	.038	—	0.97	—					
H	.069	—	1.75	—					
J	.160	.180	4.06	4.57					
K	.273	.285	6.93	7.24					
L	.245	.255	6.22	6.48					
N	.230	.240	5.84	6.10					
P	.000	.008	0.00	0.20					
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TITLE: PLD-1.5W					DOCUMENT NO: 98ASA00476D			REV: 0	
					CASE NUMBER: 2297-01			14 JUN 2012	
					STANDARD: NON-JEDEC				

PRODUCT DOCUMENTATION, SOFTWARE AND TOOLS

Refer to the following documents, software and tools to aid your design process.

Application Notes

- AN1955: Thermal Measurement Methodology of RF Power Amplifiers

Engineering Bulletins

- EB212: Using Data Sheet Impedances for RF LDMOS Devices

Software

- Electromigration MTTF Calculator
- RF High Power Model
- .s2p File

Development Tools

- Printed Circuit Boards

For Software and Tools, do a Part Number search at <http://www.freescale.com>, and select the "Part Number" link. Go to the Software & Tools tab on the part's Product Summary page to download the respective tool.

REVISION HISTORY

The following table summarizes revisions to this document.

Revision	Date	Description
0	June 2013	<ul style="list-style-type: none">• Initial Release of Data Sheet

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