

## New Products in 2010



### New Linear GaN Amplifiers

- High Linear Output with OFDM Signals: +33 dBm at 2.5% EVM
- Fully Matched to 50 ohm impedance at 4.4 to 4.9 GHz
- High Output Power at 3 dB Gain Compression Point: 40 dBm Typical
- Flexible Customization for other Frequency Bands using Hybrid Technology

Model	Pkg	Freq	Linear Gain	Gain Flatness	Input RL	Output RL	Pout @ -3 dB	Pout @ 2.5% EVM	Vdd	DC Current
> New		(GHz)	Typ/Min (dB)	Typ/Max ± (dB)	Typ (dB)	Typ (dB)	Typ/Min (dBm)	Typ (dBm)	(V)	(mA)
> MGA-444940-02	02	4.4-4.9	12 / 10	1.0/1.5	8	10	40	33	28	100-400

### New Packaged MMIC Amplifiers

- New Ceramic high performance packages for wide-band and high power MMIC amplifiers
- Gain block amplifier from 0.05 to 2 GHz and 0.5 to 4 GHz
- High dynamic range
- Ideal amplifiers for gain block or medium power amplifiers or low noise amplifiers for military and commercial

Model	Pkg /Chip	Freq	Linear Gain	Gain Flatness	Input RL	Output RL	Pout @ -1 dB	Psat	NF	Vgs	Vdd	DC Current
> New		(GHz)	Typ/Min (dB)	Typ/Max ± (dB)	Typ (dB)	Typ (dB)	Typ/Min (dBm)	Typ (dBm)	Typ (dB)	(V)	(V)	Typ/Max (mA)
> MMA-053026-87	87	0.5-4	12/11	1.0/2	10	10	27/26	---	3.5	---	8	-- / 300
> MLA-0522A-87	87	0.05-1.0	17.5	1.0	14	17	15/-	33*	1.25	-0.04	3	65 / --
	87	1.6	15	1.25	18	18		30.0	1.05			

\* Output IP3

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### New Low Noise GaAs FETS

- Super Low Noise Figure pHEMT Discrete Devices
- High Associated Gain
- 0.15 um GaAs pHEMT Process

Model	Gate Width / Length	NF @12GHz Typ	NF @4GHz Typ	Ga @ N.F @12GHz Typ/Min dB	Ga @ N.F @4GHz Typ dB	P-1dB @ 12GHz Typ dBm
► New	um	dB	dB			
► MwT-LN180	180/.15	0.50	0.20	10 / --	14.5	16.0
► MwT-LN240	240/.15	0.50	0.20	10 / --	13.0	16.0
► MwT-LN300	300/.15	0.60	0.20	10 / --	13.0	16.0
► MwT-LN600	600/.15	0.50	0.20	9 / 8	12.0	20.0

### New Low Noise Wide-Band Amplifiers

- Low Noise Figure in Wide-Band Applications
- Good Gain Flatness
- High Dynamic Range
- High Reliability 0.15 um Low Noise pHEMT Process

Model	Pkg /Chip	Freq	Linear Gain	Gain Flatness	Input RL	Output RL	NF	Pout @ -1dB	Vgs	Vdd	DC Current
► New		(GHz)	Typ/Min (dB)	Typ/Max ± (dB)	Typ (dB)	Typ (dB)	Typ (dB)	Typ/M (dBm)	(V)	(V)	Typ/Max (mA)
► MLA-0522A	chip	0.2-1	17.5 / --	6.5 / --	11	20	1.0	15.6 / --	0	3	70
		1-2.0	16 / --	1.25 / --	15	13	1.5	15 / --	0	3	70
► MLA-01122B	chip	1-8	17 / --	.6 / --	10 / --	11 / --	1.5	16 / --	--	5	55
		8-12	19	1.5 / --							
► MLA-06183A	chip	5-18	19 / --	2 / --	10 / --	11 / --	3.0	20 / --	--	4.5	135