



**RadHard
Power MOSFETs for
HiRel Applications**



Product Short Form Microelectronic Solutions

May 2011

Aeroflex RAD – RadHard Power MOSFETs

Aeroflex RAD Part Number	Breakdown Potential (V)	RDSON (mOhms) ***	Drain Current (A) ***	Gate Charge (nC) ***	TID Level (krad(Si))	SEE *	Die Size	Package	Screening	Order Availability **
RAD7110-NCP	100	220	3.5	15	100	Xe	1	Bare Die	Prototype	Now
RAD7110-NCE	100	220	3.5	15	100	Xe	1	Bare Die	EM	Now
RAD7110-NCS	100	220	3.5	15	100	Xe	1	Bare Die	Space	Jul-11
RAD7110-NFP	100	250	3.5	15	100	Xe	1	TO-39	Prototype	Now
RAD7110-NFE	100	250	3.5	15	100	Xe	1	TO-39	EM	Now
RAD7110-NFS	100	250	3.5	15	100	Xe	1	TO-39	Space	Sep-11
RAD7114-NCP	150	600	2.2	15	100	Xe	1	Bare Die	Prototype	Now
RAD7114-NCE	150	600	2.2	15	100	Xe	1	Bare Die	EM	Now
RAD7114-NCS	150	600	2.2	15	100	Xe	1	Bare Die	Space	Jul-11
RAD7114-NFP	150	630	2.2	15	100	Xe	1	TO-39	Prototype	Now
RAD7114-NFE	150	630	2.2	15	100	Xe	1	TO-39	EM	Now
RAD7114-NFS	150	630	2.2	15	100	Xe	1	TO-39	Space	Sep-11
RAD7210-NCP	200	700	2.0	15	100	Xe	1	Bare Die	Prototype	Now
RAD7210-NCE	200	700	2.0	15	100	Xe	1	Bare Die	EM	Now
RAD7210-NCS	200	700	2.0	15	100	Xe	1	Bare Die	Space	Jul-11
RAD7210-NFP	200	730	2.0	15	100	Xe	1	TO-39	Prototype	Now
RAD7210-NFE	200	730	2.0	15	100	Xe	1	TO-39	EM	Now
RAD7210-NFS	200	730	2.0	15	100	Xe	1	TO-39	Space	Sep-11
RAD7214-NCP	250	1200	1.5	15	100	Xe	1	Bare Die	Prototype	Now
RAD7214-NCE	250	1200	1.5	15	100	Xe	1	Bare Die	EM	Now
RAD7214-NCS	250	1200	1.5	15	100	Xe	1	Bare Die	Space	Jul-11
RAD7214-NFP	250	1200	1.5	15	100	Xe	1	TO-39	Prototype	Now
RAD7214-NFE	250	1200	1.5	15	100	Xe	1	TO-39	EM	Now
RAD7214-NFS	250	1200	1.5	15	100	Xe	1	TO-39	Space	Sep-11
RAD7234-NCP	250	200	9.0	50	100	Xe	3	Bare Die	Prototype	Now
RAD7234-NCE	250	200	9.0	50	100	Xe	3	Bare Die	EM	Now
RAD7234-NCS	250	200	9.0	50	100	Xe	3	Bare Die	Space	Jul-11
RAD7234-NNJP	250	200	9.0	50	100	Xe	3	SMD 0.5	Prototype	Now
RAD7234-NNJE	250	200	9.0	50	100	Xe	3	SMD 0.5	EM	Now
RAD7234-NNJS	250	200	9.0	50	100	Xe	3	SMD 0.5	Space	Sep-11
RAD7214-NQP	250	1200	1.2	15	100	Xe	Quad	LCC-28	Prototype	Now
RAD7214-NQE	250	1200	1.2	15	100	Xe	Quad	LCC-28	EM	Now
RAD7214-NQS	250	1200	1.2	15	100	Xe	Quad	LCC-28	Space	Sep-11
RAD7214-NGP	250	1200	1.2	15	100	Xe	Quad	DIP-14	Prototype	Now
RAD7214-NGE	250	1200	1.2	15	100	Xe	Quad	DIP-14	EM	Now
RAD7214-NGS	250	1200	1.2	15	100	Xe	Quad	DIP-14	Space	Oct-11

* SEE (Single Event Effects)

Units exhibit immunity to SEGR and SEB at listed ion when tested at full rated drain potential and in the off-state. See SEB/SEGR reports for full details.

** Typical lead times: 4-weeks for prototypes, 6-weeks for EMs and 12-weeks for "Class S".

Please contact factory for specific pricing and lead times.

*** Parameters are based on preliminary data and are subject to change.

Aeroflex RAD – RadHard Power MOSFETs

Aeroflex RAD Part Number	Breakdown Potential (V)	RDS(on) (mOhms) ***	Drain Current (A) ***	Gate Charge (nC) ***	TID Level (krad(Si))	SEE *	Die Size	Package	Screening	Order Availability **
RAD7160-NCP	100	10	60	150	100	Xe	6	Bare Die	Prototype	Now
RAD7160-NCE	100	10	60	150	100	Xe	6	Bare Die	EM	Now
RAD7160-NCS	100	10	60	150	100	Xe	6	Bare Die	Space	Jul-11
RAD7160-NNAP	100	13	45	150	100	Xe	6	SMD 2	Prototype	Now
RAD7160-NNAE	100	13	45	150	100	Xe	6	SMD 2	EM	Now
RAD7160-NNAS	100	13	45	150	100	Xe	6	SMD 2	Space	Aug-11
RAD7160-NMP	100	18	35	150	100	Xe	6	TO-254AA	Prototype	Now
RAD7160-NME	100	18	35	150	100	Xe	6	TO-254AA	EM	Now
RAD7160-NMS	100	18	35	150	100	Xe	6	TO-254AA	Space	Dec-11
RAD7164-NCP	150	24	35	150	100	Xe	6	Bare Die	Prototype	Now
RAD7164-NCE	150	24	35	150	100	Xe	6	Bare Die	EM	Now
RAD7164-NCS	150	24	35	150	100	Xe	6	Bare Die	Space	Jul-11
RAD7164-NNAP	150	27	35	150	100	Xe	6	SMD 2	Prototype	Now
RAD7164-NNAE	150	27	35	150	100	Xe	6	SMD 2	EM	Now
RAD7164-NNAS	150	27	35	150	100	Xe	6	SMD 2	Space	Aug-11
RAD7164-NMP	150	32	35	150	100	Xe	6	TO-254AA	Prototype	Now
RAD7164-NME	150	32	35	150	100	Xe	6	TO-254AA	EM	Now
RAD7164-NMS	150	32	35	150	100	Xe	6	TO-254AA	Space	Dec-11
RAD7260-NCP	200	34	30	150	100	Xe	6	Bare Die	Prototype	Now
RAD7260-NCE	200	34	30	150	100	Xe	6	Bare Die	EM	Now
RAD7260-NCS	200	34	30	150	100	Xe	6	Bare Die	Space	Jul-11
RAD7260-NNAP	200	37	30	150	100	Xe	6	SMD 2	Prototype	Now
RAD7260-NNAE	200	37	30	150	100	Xe	6	SMD 2	EM	Now
RAD7260-NNAS	200	37	30	150	100	Xe	6	SMD 2	Space	Aug-11
RAD7260-NMP	200	42	30	150	100	Xe	6	TO-254AA	Prototype	Now
RAD7260-NME	200	42	30	150	100	Xe	6	TO-254AA	EM	Now
RAD7260-NMS	200	42	30	150	100	Xe	6	TO-254AA	Space	Dec-11
RAD7264-NCP	250	51	28	150	100	Xe	6	Bare Die	Prototype	Now
RAD7264-NCE	250	51	28	150	100	Xe	6	Bare Die	EM	Now
RAD7264-NCS	250	51	28	150	100	Xe	6	Bare Die	Space	Jul-11
RAD7264-NNAP	250	54	28	150	100	Xe	6	SMD 2	Prototype	Now
RAD7264-NNAE	250	54	28	150	100	Xe	6	SMD 2	EM	Now
RAD7264-NNAS	250	54	28	150	100	Xe	6	SMD 2	Space	Aug-11
RAD7264-NMP	250	59	28	150	100	Xe	6	TO-254AA	Prototype	Now
RAD7264-NME	250	59	28	150	100	Xe	6	TO-254AA	EM	Now
RAD7264-NMS	250	59	28	150	100	Xe	6	TO-254AA	Space	Dec-11

Aeroflex RAD MOSFET Numbering

RAD	7	1	1	0	-	N	M	P	X
	TID Level	Breakdown	Die Size	Breakdown Adder		Channel Type	Package	Screening	Technology
	7-100 krad(Si)	1-100V 2-200V	1-Size 1 3-Size 3 6-Size 6	0-None 3-30V 4-50V		N-N Type P-P Type M-Mixed	C-Bare Die F-TO39 NJ-SMD 0.5 M-TO254AA (not low Ohmic) Q-LCC 28 Pin G-DIP 14 Pin NA SMD 2	P-Proto E-EM S-Space	Reserved

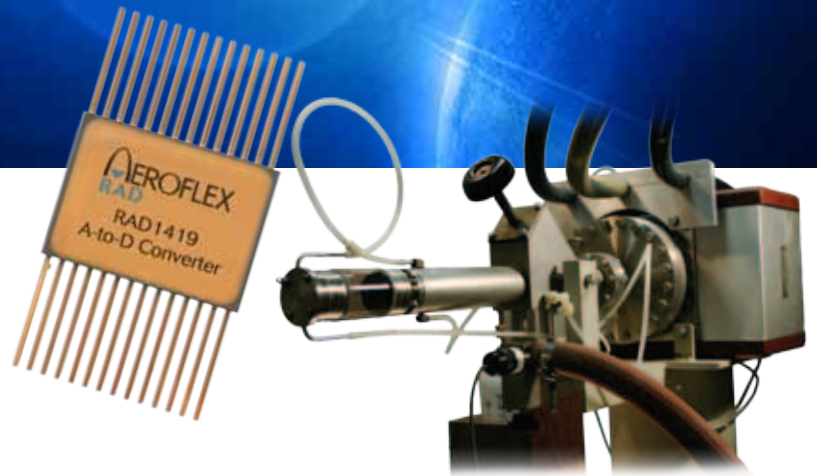
Aeroflex RAD, (formerly Radiation Assured Devices), a comprehensive radiation effects test and support laboratory, offers the following capabilities and products to the HiRel marketplace.

Capabilities

- Co-60, Cs-137, Neutron, Flash X-Ray/Prompt Dose Capabilities
- Irradiation and Device Testing per MIL-STD-750 and MIL-STD-883, Method 1019
- Enhanced Low Dose Radiation Sensitivity (ELDRS) Testing
- Radiation Lot Acceptance Testing (RLAT)
- Heavy Ion SEE (SEL, SEU, SET) EIA/JESD 57, ASTM F1192
- Focal Plane Array Radiation, Characterization and Testing
- Radiation Engineering and Component Qualification Planning
- Wafer Lot Radiation Screening, Characterization, and Qualification
- MIL-STD-750 and MIL-STD-883 Screening and Qualification of Advanced COTS

Support Services

- Quick-Turn Prototype IC Assembly
- Chip Removal and Re-assembly for RAD Testing
- Backside Chip Thinning and Re-assembly for Heavy Ion Radiation testing
- PC Board Design, Quick-Turn Prototyping and Assembly as well as Laser
- Laser Marking and Cutting



A-to-D Converters

- RAD1419 Analog-to-Digital Converter, available now
- RAD1414 Analog-to-Digital Converter, available in 3Q2011
- RAD1604 Analog-to-Digital Converter, available in 1Q2012

Bipolar Transistors Family

- RadHard "Class S" to debut 3Q2011
- JANSR to debut 1Q2012

Power MOSFET Family

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.