

LTC Introduces QML Class V SMDs for Popular Radiation Hardened Components

All new products are processed in compliance with Linear's certified MIL-PRF-38535 class V flow, in addition we are continuing to add SMDs for popular existing products, the latest products with SMDs are shown in the table below.

QML Class V product benefits:

- DLA controlled specification
- Simplified procurement and documentation process
- May remove the requirement to perform DPA
- Lot specific TID (HDR) testing – report included with the space data pack

Additional Linear Technology RH products are planned for release to QML Class V in due course, for more information or for pricing and availability for existing SMD components please contact your local sales office or lcspace@linear.com.

AMPLIFIERS					
SMD NUMBER	LTC PART NUMBER	DESCRIPTION	SUPPLIER	PACKAGE	LTC SCD
5962R1325001V9A	RH1498DICE	Dual, 10MHz GBW, 6V/ μ s Rail-to-Rail, Precision C-Load Op Amp	LTC	DICE	05-08-5208
5962R1325001VHA	RH1498MW	Dual, 10MHz GBW, 6V/ μ s Rail-to-Rail, Precision C-Load Op Amp	LTC	FP-10	05-08-5201
5962R1325101VDA	RH1499MW	Quad, 10MHz GBW, 6V/ μ s Rail-to-Rail, Precision C-Load Op Amp	LTC	FP-14	05-08-5199
5962R8876003V9A	RH1013DICE	Dual, 500kHz GBW, Precision, 300 μ V Offset Op Amp	LTC	DICE	05-08-5112
5962R8876003VHA	RH1013MW	Dual, 500kHz GBW, Precision, 300 μ V Offset Op Amp	LTC	FP-10	05-08-5013
5962R8967703VDA	RH1014MW	Quad, 500kHz GBW, Precision, 300 μ V Offset Op Amp	LTC	FP-14	05-08-5014
VOLTAGE REFERENCES					
SMD NUMBER	LTC PART NUMBER	DESCRIPTION	SUPPLIER	PACKAGE	LTC SCD
5962R8860001VGA	RH1021BMH-10	Precision 10V Reference	LTC	TO-5	05-08-5018
5962R8860002V9A	RH1021C-10DICE	Precision 10V Reference	LTC	DICE	05-08-5118
5962R8860002VGA	RH1021CMH-10	Precision 10V Reference	LTC	TO-5	05-08-5018
5962R8860002VHA	RH1021CMW-10	Precision 10V Reference	LTC	FP-10	05-08-5018
5962R8961002V9A	RH1009MDICE	Precision 2.5V Reference	LTC	DICE	05-08-5115
5962R8961002VHA	RH1009MW	Precision 2.5V Reference	LTC	FP-10	05-08-5011
5962R8961002VXC	RH1009MH	Precision 2.5V Reference	LTC	TO-46	05-08-5011

Please visit us at these conferences



September 19th to 23rd
Congress Centre, Bremen, Germany
LTC will be at booth number 24



October 3rd to 7th
Porto Palace Hotel, Thessaloniki, Greece
LTC will be at booth number 31

Space Qualified Products Overview

AMPLIFIERS						
Part Type	SMD	Description	Configuration	Typical GBW (MHz)	Package	Partner Products
RH101A		General Purpose	Single	0.1	DICE, TO-5, DIP-8, FP-10	MSK0041, MSK106
RH107B		Micropower, 120µV Offset	Dual	0.2	DICE, TO-5, DIP-8, FP-10	
RH07		Precision	Single	0.4	DICE, TO-5, DIP-8, FP-10	
RH108A		General Purpose	Single	0.5	DICE, TO-5, DIP-8, FP-10	
RH1013	5962R88760	Precision, 300µV Offset	Dual	0.5	DICE, TO-5, DIP-8, FP-10	
RH1014	5962R89677	Precision, 300µV Offset	Quad	0.5	DIP-14, FP-14	
RH6105		Rail-to-Rail Current Sense	Single	1.0	DICE	MSK196, MSK496 (Quad), MSK6000 Dual High-Side Driver
RH27A		Precision, 35µV Offset	Single	5.0	FP-10	
RH27		Precision, 55µV and 100µV Offset	Single	5.0	DICE, TO-5, DIP-8, FP-10	
RH1056A		Precision High Speed JFET Input	Single	6.5	TO-5, FP-10	
RH1056		Precision High Speed JFET Input	Single	6.5	DICE	
RH1498	5962R13250	6V/µs Rail-to-Rail, Precision C-Load	Dual	10	DICE, FP-10	MSK196
RH1499	5962R13251	6V/µs Rail-to-Rail, Precision C-Load	Quad	10	FP-14	
RH118		Precision, High Speed	Single	15	TO-5, DIP-8, FP-10	
RH1128		Ultralow Noise, $A_V \geq 1$	Single	20	DICE, FP-10	
RH37		Precision	Single	45	DICE, TO-5, DIP-8, FP-10	
RH1028		Ultralow Noise, $A_V \geq 2$ or $A_V \leq -1$	Single	75	DICE, FP-10	
RH1814		High Speed 750V/µs, 3mA	Dual	100	DICE	
RH1814		High Speed 750V/µs, 3mA	Quad	100	FP-14	
RH6200		Low Noise, 0.95nV/NHz, Rail-to-Rail	Single	165	DICE, FP-10	
COMPARATORS						
Part Type	SMD	Description	Configuration	Typical t_{PD} (nS)	Package	Partner Products
RH1016		UltraFast™ Precision	Single	10	DICE, FP-10	
RH119		High Performance	Dual	80	DICE, TO-5, DIP-8, FP-10	
RH1011		Precision	Single	150	DICE, TO-5, DIP-8, FP-10	
RH111		Please Use RH1011 for New Designs	Single	200	TO-5, DIP-8, FP-10	
VOLTAGE REFERENCES						
Part Type	SMD	Description	V_{OUT}	T.C. Max ppm/°C	Package	Partner Products
RH1034-1.2		Micropower	1.2 + 7 Aux	60	TO-46, FP-10	
RH1009	5962R89610	Precision	2.5	35	DICE, TO-46, FP-10	MSK109, MSK110 (Dual)
RH1021-5		Precision	5	5-20	DICE, TO-5, FP-10	
RH129A		Precision	6.9	10	TO-46	
RH1021-7		Precision	7	5-20	TO-5	
RH1021-10	5962R88600	Precision	10	5-20	DICE, TO-5, FP-10	
DATA CONVERTORS						
Part Type	SMD	Description	Resolution	F_S (kSPS)	Package	Partner Products
LTC1604		Sampling ADC with Shutdown	16-Bit	333	SSOP-36	
LTC1419A		Sampling ADC with Shutdown	14-Bit	800	DICE	RAD1419
VOLTAGE REGULATOR DRIVER						
Part Type	SMD	Description	V_{IN} Max	I_{OUT} (A)	Package	Partner Products
RH1573		Up to 5A with External PNP	10	1.0	DICE	MSK5800, MSK5805, MSK5810, MSK5820, MSK5821, MSK5822, MSK5823, MSK5824, MSK5825, MSK5826, MSK5950
POSITIVE LINEAR REGULATORS						
Part Type	SMD	Description	V_{IN} Max	I_{OUT} (A)	Package	Partner Products
RH1086H		Adjustable	25	0.5	DICE, TO-39	
RH117H		Adjustable	40	0.5	DICE, TO-39	
RH3080		Adjustable, Single Resistor	40	0.9	DICE	MSK5978, MSK5978, MSK5979, VRG8666, Dual Regulators: MSK5953, VRG8667, VRG8668
RH1965		Adjustable, with Shutdown	20	1.0	DICE	MSK5965
RH1086K		Adjustable	25	1.5	DICE, TO-3	MSK5970, VRG8662, Dual Regulators: VRG8657, VRG8658, Positive + Negative Regulators: VRG8651, VRG8652
RH117K		Adjustable	40	1.5	DICE, TO-3	MSK5972, VRG8660, Dual Regulators: VRG8607, VRG8608, Positive + Negative Regulators: MSK5911, MSK5912, MSK5913, MSK5914, MSK5915, MSK5916, MSK5917, MSK5918, MSK5919, VRG8601, VRG8602
RH3083		Adjustable, Single Resistor	18	2.8	DICE	MSK5983, MSK5984, MSK5985, MSK5986, VRG8669, VRG8697, VRG8698
RH1085		Adjustable	30	3.0	DICE, TO-3	MSK5971, Positive + Negative Regulators: MSK5930, MSK5931, MSK5932, MSK5933, MSK5934, MSK5935, MSK5936, MSK5937, MSK5938, MSK5939
RH1084		Adjustable	25	5.0	DICE	VRG8684, Dual Regulators: VRG8687, VRG8688, Positive + Negative Regulators: VRG8653, VRG8654
NEGATIVE LINEAR REGULATORS						
Part Type	SMD	Description	V_{IN} Max	I_{OUT} (A)	Package	Partner Products
RH137H		Adjustable	30	0.5	DICE, TO-39	
RH137K		Adjustable	30	1.5	DICE, TO-3	MSK5973, VRG8661, Dual Regulators: VRG8609, VRG8610, Positive + Negative Regulators: MSK5911, MSK5912, MSK5913, MSK5914, MSK5915, MSK5916, MSK5917, MSK5918, MSK5919, VRG8601, VRG8602
RH1185A		Adjustable with Current Limit	35	3.0	DICE, TO-3	MSK5940, VRG8663, Positive + Negative Regulators: MSK5930, MSK5931, MSK5932, MSK5933, MSK5934, MSK5935, MSK5936, MSK5937, MSK5938, MSK5939, VRG8651, VRG8652, VRG8653, VRG8654
SWITCHING REGULATORS AND CONTROLLERS						
Part Type	SMD	Description	V_{IN} Max	I_{OUT} (A)	Package	Partner Products
RH1959		500kHz Step-Down Switching Regulator	16	4.5	DICE	MSK5044, MSK5048, MSK5052, MSK5059
RH3845		Sync Step-Down Controller, 100kHz to 500kHz	60	10	DICE	MSK5055 Switching Controller IC
RHK3845		RH3845 Controller + 2xRH411 NMOS FETs	60	10	3 x DICE	MSK5063 Switching Regulator Module

Notes: Partner products are built using LTC RH/DICE and sold by ANAREN INC. (formerly MS KENNEDY CORP. (MSK prefix) and COBHAM plc (formerly AEROFLEX MICROELECTRONIC SOLUTIONS) (VRG and RAD prefix). LTC SMD references are shown, please contact LTC for latest status. SMD references for MSK, VRG and RAD part numbers are available on line.