

THE BUSINESS OF SPACE



Over the past few years, a revolution has occurred in space. New companies are entering this market with plans for low earth orbit (LEO) constellations offering world wide internet, ship and asset tracking, high definition earth observation or private networks. They want the benefits of lower cost Commercial Off The Shelf (COTS) components combined with a degree of radiation tolerance.

Avnet Silica works with their semiconductor partners to support this dynamic new market area. These suppliers use their vast knowledge and long experience of supporting the traditional radiation-hardened market to come up with innovative, lower cost, reliable and radiation tolerant components.

Avnet Silica can now offer a wide range of radiation tolerant component solutions from Analog, Memory MCU, FPGAs and Data Acquisition. Radiation specs vary by supplier but here follows a current list of radiation tolerant products that are meeting the demands of New Space customers.

DATA ACQUISITION – ADC / DAC



EV12AQ600 – Quad 12b 1.6GSps ADC 2Ch: 3.2GSps 1Ch: 6.4GSps >6GHz bandwidth

EV12DS130 – 12b 3GSps DAC 7GHz bandwidth

EV12DS460 – 12b 6GSps DAC 7GHz bandwidth

EV12DS480 – 12b 8GSps DAC 7GHz bandwidth



MCP37X31-200 – 200MSPS, 16bit, Pipeline ADC

ANALOG SIGNAL CHAIN



ISL71444M – 19Mhz Rail to Rail IO Quad Op amp

ISL71010BMB25 – Ultra Low Noise 2.5V Precision Voltage Reference

ISL71010BMB50 – Ultra Low Noise 5V Precision Voltage Reference

ISL71218M – Dual Precision Rail to Rail output op amp

ISL71610M – Digital isolator with passive input

ISL71710M – Digital isolator

ISL71043M – Low Power Single Ended PWM Controller

ISL71030M – 3-5V, 16 Channel analog multiplexer

FPGA / SoC



A3PE3000L – 3000k System Gates Low power, reprogrammable FPGA

A3PE600L – 600k System Gates Low power, reprogrammable FPGA

KU5P – Kintex UltraScale+ SFRB784, FFRB676 -1I, -1LI, -2I, -1M

KU15P – Kintex UltraScale+ FFRA1156, FFRE1517 -1I, -1LI, -2I, -1M

VU3P – Virtex UltraScale+ FFRC1517 -1I, -2LE, -2I, -1M

VU7P – Virtex UltraScale+ FLRA2104, FLRB2104 -1I, -2LE, -2I

VU11P – Virtex UltraScale+ FLRC2104 -1I, -2LE, -2I

ZU3EG – Ultrascale Ruggedized Zynq US+ MPSOC SFRA484, SFRC784 -1I, -1LI, -2I, -1M

ZU5EV – Ultrascale Ruggedized Zynq US+ MPSOC SFRC784, FFRB900 -1I, -1LI, -2I, -1M

ZU7EV – Ultrascale Ruggedized Zynq US+ MPSOC FFRB900, FFRC1156 -1I, -1LI, -2I, -1M

ZU9EG – Ultrascale Ruggedized Zynq US+ MPSOC FFRC900, FFRB1156 -1I, -1LI, -2I, -1M

ZU11EG – Ultrascale Ruggedized Zynq US+ MPSOC FFRC1156, FFRC1760 -1I, -1LI, -2I, -1M

ZU15EG – Ultrascale Ruggedized Zynq US+ MPSOC FFRC900, FFRB1156 -1I, -1LI, -2I, -1M

ZU19EG – Ultrascale Ruggedized Zynq US+ MPSOC FFRB1517, FFRC1760 -1I, -1LI, -2I, -1M

ZU21DR – Ultrascale Ruggedized Zynq US+ RFSOC FFRD1156 -1I, -1LI, -2I, -1M

ZU28DR – Ultrascale Ruggedized Zynq US+ RFSOC FFRE1156, FFRG1517 -1I, -1LI, -2I, -1M

ZU29DR – Ultrascale Ruggedized Zynq US+ RFSOC FFRF1760 -1I, -1LI, -2I, -1M



INTERFACE



ISL71026M – 3.3V, 1MBPS CaN Transceiver



VSC8541 – Gbit Ethernet PHY

MCU/ MPU

P2020 – Dual 1.2GHz PowerArchitecture® core Radiation tolerant Space Microprocessor

P5020 – Dual 1.5GHz PowerArchitecture® core Radiation tolerant Space Microprocessor

LS1046 – LS1046 module with 4GB DDR4 1.6GHz Clk



QLS1046-4GB-Space – Qormino® Space Common Compute Platform, LS1046 Quad ARM® Cortex A72 & 4GB DDR4

PC7448 – Single Core 1.2GHz PowerArchitecture® core QML-Y Radiation tolerant Space Microprocessor

PC8548 – Single Core 1.2GHz PowerArchitecture® core QML-Y Radiation tolerant Space Microprocessor



ATmegaS128 – AVR8 - <20DMIPS, SPI,TWI, UART, ADC

ATmegaS64M1 – AVR8 - <20DMIPS, CAN, DAC & Motor Control

SAMV71Q21RT – ARM32 M7 - 600DMIPS, CAN FD, Ethernet TSN, DSP

SAM3X8E – ARM32 M3 100DMIPS, Ethernet, 2x CAN, ADC/DAC

MEMORY



RH6940NM2S – 940 GB Rad Tolerant SLC SSD with 6U Space VPX Format

RH6470NM2S – 470 GB Rad Tolerant SLC SSD with 6U Space VPX Format



TDRM24C512C-L – 512Kb CBRAM



GS8xxxyyyRT – 36 / 72 / 144 Mb x18 / x36 Pipeline/ Flow Through Sync SRAM 100-pin TQFP

GS8xxxZyyyRT – 36 / 72 / 144 Mb x18 / x36 NBT Pipeline/Flow Through Sync SRAM 100-pin TQFP

GS8xxxQTyRE – 72 / 144 / 288 Mb x18 / x36 SigmaQuad-II+ B2 Sync SRAM 165-bump BGA



SST38VF6401 – 64Mbit Parallel Flash

AT28C010 – 1Mbit Parallel EEPROM, 5V

AT17LV010 – 4Mbit Serial EEPROM, 3.3V

POWER



ISL71001M – 6A Synchronous Buck Regulator

ISL71040M – Low Side GaN FET Driver



TDG100E120B – 100V 120A GaN Power FET

TDG650E60B – 650V 60A GaN Power FET

This is a dynamic business and the list of available products continues to grow.

Please contact us for the latest update or to request availability of product not shown above.

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