



ADI Space Products Engineering Models

January 2024

Prototyping with Engineering Models (EMX/ES)

When developing a new design, prototyping with fully screened space-grade devices can be impractical. That's why ADI offers engineering models that can be used for prototyping purposes before your design is ready for production.

If you're interested in a prototype engineering model that does not appear on this list, please reach out to your local sales representative to see if there might be other options available.

ADI's space EMX models have the same fit, form, and function over the full temperature range of standard flight units. They're manufactured from the same raw material set and processed on the same manufacturing assembly and test line as our standard space products. EMX units are processed through 240-hour burn-in so that you can expect the same electrical performance as the final production units. Models marked as B5-ES and B6-ES are pulled from old Group B5 and B6 sample units, and those marked ES are either DICE samples or pulled from other qualification steps. These engineering models do not go through quality conformance inspection, so they are not recommended for flight use.

Data Conversion & Clocking

Analog to Digital Converters (ADC)

Generic	Model	Description
AD574S	AD574AUF-EMX	12-Bit ADC w/ Microprocessor Interface
AD1671S	AD1671F-EMX	12-Bit 1.25 MSPS ADC
AD1672S	AD1672F-EMX	12-Bit 3 MSPS ADC
AD9042S	AD9042SD-EMX AD9042SF-EMX	12-Bit 41 MSPS ADC
AD9246S	AD9246AF-EMX	14-Bit 125 MSPS ADC
AD9254S	AD9254BF-EMX	14-Bit 150 MSPS ADC
AD9283S	AD9283RC-EMX	8-Bit 100 MSPS, 3.3V ADC

Digital to Analog Converters (DAC)

Generic	Model	Description
AD667S	AD667D-EMX AD667F-EMX	12-Bit Microprocessor Compatible DAC
AD768S	AD768AF-EMX	16-Bit 30 MSPS DAC
DAC08S	DAC08AF-EMX DAC08ARC-EMX	8-Bit High-Speed Multiplying DAC

Power Management

Regulators

Generic	Model	Description
AD574S	AD574AUF-EMX	12-Bit ADC w/ Microprocessor Interface
RH1086M	RH1086MH-EMX	0.5A & 1.5A Low Dropout Positive Adjustable Regulators
RH1959	RH1959MW-EMX	4.5A 500kHz Step-Down Switching Regulator
RH3080MK	RH3080MG16-EMX	Adjustable 0.9A Single Resistor Low Dropout Regulator
RH3083MK	RH3083MW-EMX	Adjustable 2.8A Single Resistor Low Dropout Regulator
RH3845MK	RH3845MW-1-EMX RH3845MW-2-EMX	High-Voltage Synchronous Current-Mode Step-Down Controller with Adjustable Operating Frequency

Precision Linear

Comparators & Multiplexer

Generic	Model	Description
AD8561S	AD8561AL-EMX	7ns Single Comparator
AD8182S	AD8182AM-EMX	Dual 2:1 MUX
RH1011	RH1011W-EMX	Voltage Comparator
RH1016M	RH1016MW-EMX	UltraFast™ Precision 10ns Comparator
RH119	RH119W-EMX	High-Performance Dual Comparator

Current Sense Amplifiers

Generic	Model	Description
AD8210S	AD8210AF-EMX	High Voltage Current Shunt Monitor
AD8212S	AD8212AL-EMX	High Voltage Current Shunt Monitor
RH6105	RH6105MW-EMX	Micropower Precision Rail-to-Rail Input Current Sense Amplifier

Operational Amplifiers

Generic	Model	Description
AD8001S	AD8001SL-EMX	800 MHz, 50 mW Current Feedback Amp
AD8041S	AD8041SL-EMX	160 MHz Rail-to-Rail Amplifier
AD8138S	AD8138AL-EMX	Low Distortion Differential Amplifier
AD8351S	AD8351ARC-EMX	Wide Bandwidth Differential Amp
AD8367S	AD8367AF-EMX	500 MHz VGA
AD8629S	AD8629AL-EMX	Low Offset Precision Amplifier
AD8671S	AD8671AL-EMX	Low Offset, Low Noise Amplifier - Single
AD8674S	AD8671AL-EMX	Low Offset, Low Noise Amplifier - Quad
ADA4077-2S	ADA4077-2AF-EMX	Low Offset & Drift, High Precision Dual Amplifier
ADA4077-4S	ADA4077-4AF-EMX	Low Offset & Drift, High Precision Quad Amplifier
ADA4084-2S	ADA4084-2AF-EMX	Dual Low Noise Rail-to-Rail I/O, Low-Power Amplifier
ADA4084-4S	ADA4084-4AF-EMX	Quad Low Noise Rail-to-Rail I/O, Low-Power Amplifier
ADA4096-2S	ADA4096-2AF-EMX	Micro-power Rail-to-Rail Amplifier
ADA4610-2S	ADA4610-2BF-EMX	Low Input Bias Op-Amp
ADH943A	ADH943ALSH7-EMX	GaAs PHEMT MMIC Power Amplifier, 24 - 34 GHz
OP400S	OP400AN-EMX	Quad Low-Offset Low-Power Op Amp
OP467S	OP467AM-EMX	Quad Precision, High-Speed Op-Amp
OP484S	OP484AM-EMX	Precision Rail to Rail I/O Op-Amp
RH27C	RH27CW-EMX	Precision Op-Amp
RH108A	RH108AH-EMX	Op-Amp
RH1013M	RH1013MW-EMX	Precision Dual Op-Amp
RH1014M	RH1014M-EMX	Precision Quad Op-Amp
RH1028M	RH1028MW-EMX	Ultralow Noise Precision High-Speed Op-Amp
RH1056A	RH1056AMW-EMX	Precision High-Speed JFET Input Op-Amp
RH1128M	RH1128MW-EMX	Ultralow Noise Precision High-Speed Op-Amp
RH1498M	RH1498MW-EMX	10MHz 6V/us Dual Rail-to-Rail I/O Precision C-Load Op-Amp
RH1499M	RH1499MW-EMX	10MHz 6V/us Quad Rail-to-Rail I/O Precision C-Load Op-Amp
RH1814M	RH1814MW-EMX	Quad 3mA 100MHz 750V/us Op-Amp
RH1078MW	RH1078MW-EMX	Micropower Single-Supply Precision Dual Op-Amp
RH6016S	RH6016MW-EMX	Dual 3.2MHz, 0.8V/μs Low Power, Over-The-Top Precision Op Amp
RH6200MW	RH6200MW-EMX	Low-Noise High-Speed Rail-to-Rail Op-Amp

Voltage References

Generic	Model	Description
REF43S	REF43AL-EMX	+2.5V Reference
RH1009	RH1009MH-EMX	2.5V Reference
RH1021-5	RH1021CMW-5-EMX	Precision 5V Reference
RH1021-7	RH1021BMH-7-EMX	Precision 7V Reference
RH1021-10	RH1021CMW-10-EMX	Precision 10V Reference
RH1034-1.2	RH1034MH-1.2-EMX	Micropower Dual Reference

RF & Microwave

PLL, Transceiver, Modulator

Generic	Model	Description
AD9361S	AD9361BBC-CSH-EMX	RF Agile Transceiver
ADF4108S	ADF4108BF-EMX	PLL Frequency Synthesizer
AD8346S	AD8346AF-EMX	2.5 GHz Modulator

Detectors & Logarithmic Amplifiers

Generic	Model	Description
AD8306S	AD8306AF-EMX	400 MHz Logarithmic Amplifier
ADL5501S	ADL5501AL-EMX	6 GHz RMS Power Detector
ADL5513S	ADL5513AF-EMX	4 GHz Logarithmic Amplifier
ADL6010S	ADL6010LSH6-EMX	43 GHz Envelope Detector

Low Noise Amplifiers

Generic	Model	Description
AD8229S	AD8229AF-EMX	Instrumentation Amplifier
ADH519S	ADH519LSH6-EMX	GaAs PHEMT MMIC Low Noise Amplifier, 18 – 31 GHz
OP27S	OP27AL-EMX	Low Noise Precision Op-Amp

Clock and Timing

Generic	Model	Description
ADCLK925S	ADCLK925AF-EMX	ECL Clock/Data Fanout Buffer
ADH987S	ADH987G32-EMX	3.3V Low Noise 1:9 Fanout Buffer DC – 4GHz

Interface and Isolation

Generic	Model	Description
ADuM141ES	ADuM141E1AF-EMX	Robust Quad ISO, 3:1 Ch
ADuM3190S	ADuM3190AF-EMX	High Stability Isolated Error Amplifier
ADuM7442S	ADuM7442AF-EMX	25 MBPS Quad Channel Digital Isolator