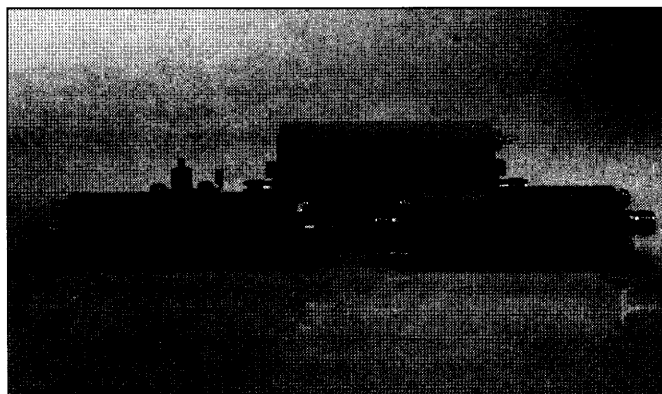


0.5 to 8.0 GHz Low-Noise Amplifiers

- ❑ Frequency Coverage:
 - 0.5-4 GHz 2-4 GHz 2-6 GHz
 - 2-8 GHz 4-8 GHz
- ❑ 2.0-8.0 GHz, 2.5 dB Noise Figure @ 25°C
- ❑ Temperature Compensation
- ❑ MIL-STD-883 Screening
- ❑ MIL-Q-9858A Quality



DESCRIPTION

Celeritek amplifiers are balanced or feedback designs and manufactured with MIC technology. The GaAs FETs used in these amplifiers are produced in Celeritek's foundry. These products are offered in four types for specific applications:

- CLA = Low Noise @ +25°C
- CLT = Low Noise @ -54°C to +90°C
- CMA = Standard Amplifier @ +25°C
- CMT = Standard Amplifier @ -54°C to +90°C

IMPROVED PERFORMANCE

The specification table shows excellent noise figures for both CLA and CLT model amplifiers. These noise figures can be improved for narrow-band applications.

OTHER CAPABILITIES

Celeritek also offers other functions for amplifiers in this frequency range such as: phase and gain matching, input limiters, output limiters and log amplifiers. See the specification sheet on Celeritek's connectorless (drop-in) packages for amplifiers in this frequency range. In addition, the company manufactures amplifiers up to 40 GHz.

QUALITY AND RELIABILITY

Celeritek's MIL-I-45208 inspection system and MIL-Q-9858A quality assurance program establishes and maintains product standards and workmanship practices. Screening for all Celeritek's standard amplifiers is based on MIL-STD-883. These amplifiers are designed and constructed to meet the testing required of MIL-E-5400 and MIL-E-6400 specifications.

Model	Frequency Response (GHz)	Gain (dB)	Gain versus Temperature at any Frequency (±dB)		Noise Figure (dB)	Power Output for 1dB Compression (+dBm)		Gain Flatness vs Freq (±dB)	3rd Order Intercept Point (+dBm)	Input (1) DC current @ +12V (mA)		Case Type
			Min	Max		Min	Max			Typ	Typ	
Low-Noise Amplifiers with Guaranteed Specifications from -54°C to +90°C												
CLT-8-2013	2-8	24	1.00	3.2	12	1.5	22	250	280	SC6		
CLT-8-2014	2-8	33	1.00	3.2	18	1.5	27	310	350	SC6		
CLT-8-2015	2-8	42	1.00	3.2	18	1.5	27	370	410	SC6		
Low-Noise Amplifiers with Guaranteed Specifications at +25°C												
CLA-8-2013	2-8	28	-	2.5	16	1.5	26	230	260	SC4		
CLA-8-2014	2-8	38	-	2.5	18	1.5	27	290	320	SC6		
CLA-8-2015	2-8	48	-	2.5	18	1.5	27	350	390	SC6		
Standard Amplifiers with Guaranteed Specifications from -54°C to +90°C (Continues on back page)												
CMT-4-0502	0.5-4	17	1.00	4.0	18	1.0	27	140	155	SC2		
CMT-4-0503	0.5-4	26	1.25	4.0	18	1.0	27	190	210	SC4		
CMT-4-0504	0.5-4	35	1.50	4.0	18	1.5	27	240	265	SC4		
CMT-4-2002	2-4	20	0.75	5.5	18	1.0	27	180	210	SC4		
CMT-4-2003	2-4	30	1.00	5.5	18	1.0	27	220	260	SC4		
CMT-4-2004	2-4	41	1.25	5.5	18	1.5	27	280	325	SC6		
CMT-6-2002	2-6	20	0.75	6.5	18	1.0	27	180	210	SC4		
CMT-6-2003	2-6	30	1.00	5.5	18	1.0	27	220	260	SC4		
CMT-6-2004	2-6	41	1.25	5.5	18	1.5	27	280	325	SC6		

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