ERZIA

New Space COTS
PRODUCT GUIDE 2026

Modules Ready for Lift Off

ERZIA's New Space COTS Amplifiers

ERZIA's NewSpace COTS amplifier line has been specifically developed to address the stringent requirements of NewSpace applications. Each amplifier maintains the same high RF performance as our commercial off-the-shelf equivalent—ensuring robustness against vibration, acceleration, shock, thermal cycling, and other environmental stresses encountered in space environments.
In addition, several design enhancements have been implementedto optimize reliability and performance for NewSpace missions.

Optimized Mechanics for Vacuum environment.
DC&Control section Rad-Tolerant rated to withstand 30 krad and up to 43 MeV-cm2/mg in key components.
All Passive components with at least automotive grade materials selected to comply outgassing requirements.

HPA COTS

Part Number HPA's	Freq Start (GHz)	Freq Stop (GHz)	Pout (dBm)	Gain(dB)
ERZ-HPA-1730-2120-44-NS	17.3	21.2	43.5	50
ERZ-HPA-1730-2120-42-NS	17.3	21.2	43	40
ERZ-HPA-0002-0600-42-NS	0.02	6	42	38
ERZ-HPA-0200-0600-43-NS	2	6	43	43
ERZ-HPA-0200-0400-30-NS	2	4	30	39
ERZ-HPA-2000-4000-39-NS	20	40	39	52
ERZ-HPA-0600-1800-40-E-NS	6	18	41	46
ERZ-HPA-0100-1800-37-NS	1	18	36	36
ERZ-HPA-3750-4250-39-NS	37.5	42.5	39	49
ERZ-HPA-0800-1100-43-NS	8	11	43.5	42

LNA COTS

Part Number LNA's	Freq Start (GHz)	Freq Stop (GHz)	Pout (dBm)	Gain(dB)	Noise Figure (dB)
ERZ-LNA-2500-4300-33-2-NS	25	43	4	28	2
ERZ-LNA-0700-1300-21-1-NS	7	13	11	24	1.2
ERZ-LNA-0100-0310-30-2-NS	1	3.1	19	30	1.6
ERZ-LNA-0070-0300-20-0.7-NS	0.70	3	21	20	0.7
ERZ-LNA-0400-0800-28-1-NS	4	8	5.5	28	1
ERZ-LNA-2100-2700-25-2-NS	21	27	15	25	2.5
ERZ-LNA-0700-1300-51-1-NS	7	13	11	51	1.2
ERZ-LNA-1700-2400-25-2.5-NS	17	24	14	25	2.5

New Space RF & Microwave COTs Ready for Lift Off

Vacuum
Integrated de-pressurization structures enable the fastest de-pressurization profiles

Radiation
Radiation tolerant circuitry rated to 30 Krad and up to 32 MeV

Outgassing
Materials selected to comply outgassing requirements

Reporting
Acceptance Test Report is delivered at three temperatures with additional analysis by request

Testing
Thermal screening and electrical testing before delivery with additional environmental tests and screenings available

Components Quality
All passive components meet or exceed the AEC-Q200 standard

Features

FEATURE	COTS	NEW SPACE (-NS)
Operating Temperature range -45 to +85 °C (MIL-STD-810F, method 520.2)	X	X
Random Vibration 8g RMS (MIL-STD-810F, method 514.5)	X	X
Mechanical Shock 20g, 11ms SawTooth (MIL-STD-810F, method 516.5)	X	X
Acceleration 15g (MIL-STD-810F, method 513.5)	X	X
Thermal cycling (Based in MIL-HDBK-2164 Rev. A)	X	X
Simplified power interface Single DC supply line	X	X
ATP at three temperatures CoC & CoO supplied	X	X
RF section radiation tolerance (TID) Technology intrinsically tolerant to 300 krad (TID)	X	X
RF section radiation SEE tolerance: SEE-aware RF design and filtering	-	X
DC section radiation tolerance (TID) Radiation Tolerant to 30 krad (TID) plus housing shielding.	-	X
DC section radiation SEE tolerance: Passive SEE mitigation plus rad-tolerant (43 MeV-cm2/mg) in key components	-	X
Vacuum-optimized mechanics (venting, joints) (ECSS-Q-ST-70-02)	-	X
Low-outgassing materials (ECSS-Q-ST-70 / NASA-ASTM-E595 compliant)	-	X
Pure-tin mitigation(whisker control / alternative finishes) (GEIA-STD-0005-2 guidelines)	-	X
Prepared for LEO (atomic-oxygen mitigation techniques)	-	X
All passive components with at least automotive grade (AEC-Q200)	-	X
Screening of RF active devices / Complete burn in	-	Optional
Additional documentation & analyses (FMECA, Worst-Case, etc.) — NDA required	-	Optional
Environmental testing on demand (TVAC, vibration, …)	-	Optional

AENOR AEROSPACE QUALITY EN 9100

AENOR QUALITY MANAGEMENT ISO 9001

FAQ’s

Why did ERZIA create a dedicated product line for New Space?

ERZIA has more than 22 years of experience doing RF & Microwave modules for hi-rel applications, including traditional space programs. At the same time, ERZIA counts with more than 300 COTS prepared for rugged applications. We have combined this knowledge to apply our heritage in space to COTS amplifiers resulting in highly reliable modules, optimized for New Space (-NS) with an efficient approach and short delivery times, without all the overheads typically needed at traditional space programs.

How fast can I get them?

Quick delivery is one of the strongest advantages of this line, compared with traditional space hardware. They’re engineered to be available when you need them, avoiding long lead-time components, so your program stays on schedule.

Can I use your -NS COTS in other environments like MEO, GEO, the moon, mars or beyond?

It is your decision. You must evaluate the requirements of your program, the mission lifetime and radiation environment against our -NS COTS specifications. We will be ready to support you if you need additional documentation, tests or modifications. As a rule of thumb, environments like LEO, MEO, the moon, or relatively short missions (up to a few years) can be a good fit. Longer missions or high-radiation environments will require a dedicated study or switch to a traditional space project.

Can you manufacture in volume?

Yes, ERZIA is fully equipped to handle volume-sized production orders while maintaining the highest quality and performance standards.

How do I know if your part meets my quality program requirements?

We are ISO9001 and UNE: EN 9100 certified. These parts are COTS with enhanced robustness measures including for risk mitigation in space environments. We deliver and manufacture them against ERZIA specifications and our internal procedures. If you need something fully adapted to your program, please contact us for a tailored solution: sales@erzia.com

What kind of documentation and testing comes with them?

Each amplifier ships with a complete Acceptance Test Report (covering three temperatures). Additional analyses, documentation, and environmental screenings can be requested on demand.

Why choose ERZIA New Space Modules?

Because they are a great balance between:
- Same RF performance as our valued COTS.
- Risk mitigation with specific measures taken for space environment.
- Quick availability with short lead-times.
environmental screenings can be requested on demand.

ERZIA

WE TAKE YOU FURTHER

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