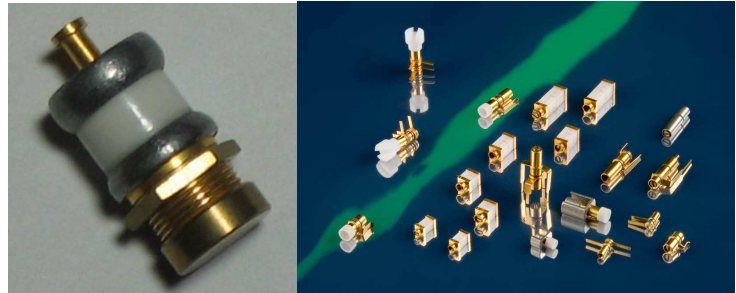


High Reliable Frequency Tuning Components

ROHS, ESA COMPLIANT FOR SPACE APPLICATIONS

DESCRIPTION

High Rel Air-Trimmed capacitors &
High Rel GigaHertz trimmer capacitors
compliant to ESA/SCC Generic Specification
n°3010 and Detail Specifications N°3010/004 to
N°3010/017



High Rel Tuning Elements according to
ESA/SCC Generic Specification n° 3010, to
TEMEX-CERAMICS specification or customer
requirements



APPLICATIONS

Military and Avionics equipment
Space applications

I. HIGH RELIABLE AIR-TRIMMER CAPACITORS

ESA/SCC Detail Specification	Capacity Range	Φ Body	Part Numbers
N°3010/004	1.0 to 10.0 pF	7.6 mm	AT 5200 HR ROHS, AT 5202 HR ROHS, AT 5201 HR ROHS, AT 8052 HR ROHS, AT 5276 HR ROHS
N°3010/005	1.0 to 10.0 pF	9.8 mm	AT 5300 HR ROHS, AT 5302 HR ROHS, AT 5301 HR ROHS
N°3010/006	1.4 to 14.0 pF	7.6 mm	AT 5400 HR ROHS, AT 5402 HR ROHS, AT 5401 HR ROHS, AT 8053 HR ROHS, AT 5476 HR ROHS
N°3010/007	1.4 to 16.0 pF	7.6 mm	AT 5450 HR ROHS, AT 5452 HR ROHS, AT 5451 HR ROHS, AT 5453 HR ROHS
N°3010/008	1.0 to 20.0 pF	8.0 mm	AT 5500 HR ROHS, AT 5502 HR ROHS, AT 5501 HR ROHS
N°3010/009	1.0 to 30.0 pF	8.0 mm	AT 5600 HR ROHS, AT 5602 HR ROHS, AT 5601 HR ROHS
N°3010/010	0.8 to 6.0 pF	6.2 mm	AT 5700 HR ROHS, AT 5702 HR ROHS, AT 5701 HR ROHS, AT 8050 HR ROHS
N°3010/011	1.0 to 10.0 pF	6.2 mm	AT 5750 HR ROHS, AT 5752 HR ROHS, AT 5751 HR ROHS, AT 5753 HR ROHS
N°3010/012	0.6 to 3.5 pF	4.6 mm	AT 5800 HR ROHS, AT 5802 HR ROHS, AT 5801 HR ROHS, AT 8051 HR ROHS
N°3010/013	0.6 to 5.0 pF	4.6 mm	AT 5850 HR ROHS, AT 5852 HR ROHS, AT 5851 HR ROHS, AT 5853 HR ROHS

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II. HIGH RELIABLE GIGAHERTZ TRIMMER CAPACITORS

ESA/SCC Detail Specification	Capacity Range	Φ Body	Part Numbers
N°3010/014	0.8 to 8.0 pF	3.0 mm	AT 27290 ROHS, AT 272 91 ROHS, AT 27293 ROHS, AT 27298 ROHS
N°3010/015	0.6 to 4.5 pF	3.0 mm	AT 27270 ROHS, AT 272 71 ROHS, AT 27273 ROHS, AT 27278 ROHS
N°3010/016	0.4 to 2.5 pF	3.0 mm	AT 27280 ROHS, AT 272 81 ROHS, AT 27283 ROHS, AT 27288 ROHS
N°3010/017	0.3 to 1.2 pF	1.9 mm	AT 27260 ROHS, AT 272 61 ROHS, AT 27263 ROHS, AT 27268 ROHS

Others variants available upon request

III. LOT ACCEPTANCE TESTS

Flight models of Air-Trimmer capacitors and Giga-Hertz Trimmer capacitors are delivered with data documentation of Lot Acceptance Tests as requested by the customer.

There are 3 levels of Lot Acceptance Tests according to ESA/SCC Generic Specification N°3010. Lot Acceptance Tests require additional flight models for tests which are not part of the delivery lot.

- Lot Acceptance Tests Level 1 (LAT1): + 37 flight models for tests
- Lot Acceptance Tests Level 2 (LAT2) + 27 flight models for tests
- Lot Acceptance Tests Level 3 (LAT3): + 6 flight models for tests

There are 2 Testing levels

- Level C: components are not serialized
- Level B: components are serialized

As Air-Trimmer and Giga-Hertz Trimmer Capacitors are mechanical components, there are no failure rate figures.

IV. HOW TO ORDER HIGH RELIABLE AIR-TRIMMER CAPACITORS & GIGAHERTZ CAPACITORS

Examples:

Reference	ESA/SCC Detail Specification N°, variant	LAT	Level
AT 5202 HR ROHS	ESA/SCC N°3010/00 4 Variant 02	LAT3	Level C
AT 27273 HR ROHS	ESA/SCC N°3010/015 Var iant 05	LAT2	Level B

V. HIGH RELIABLE TUNING ELEMENTS

Tuning Elements mainly used in filters, cavities, oscillators, are available in High Reliable version according to internal TEMEX-CERAMICS specification, or to customer specification.



High Reliable Frequency Tuning Components

ROHS, ESA COMPLIANT FOR SPACE APPLICATIONS

TEMEX-CERAMICS specification is available upon request.

As microwave tuning elements are mechanical components, there are no failure rate figures.

VI. SPACE FLIGHT HISTORY

TEMEX-CERAMICS Frequency Tuning Components including Microwave Tuning Elements are used for Space applications since 1985 (ESA Certificate of Qualification N°129)

Main customers are :

THALES ALENIA SPACE in France, Italy, Spain

RUAG SPACE in Sweden

EADS ASTRIUM in UK

SPACE AGENCY CENTER, India

ALTER (IGG, TECNOLOGICA, TOPREL) in UK, Spain, Italy

COBHAM in France

Mac DONALD DETWILLER in Canada

TESAT in Germany

COM DEV EUROPE in UK

SURREY SATELLITE TECHNOLOGY in UK