

New Space Electronics®

Tackling the challenges of new space flights
with traceable, innovative solutions

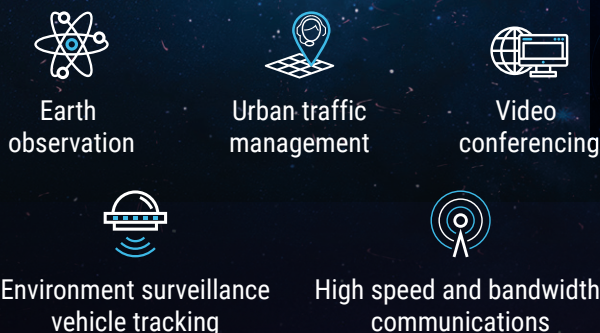
Existing Concepts To Clean Up Space Fishing Net Premise

- Congested with space debris due to increasing frequency of launches and collisions.

Kessler Syndrome



NEW SPACE APPLICATIONS

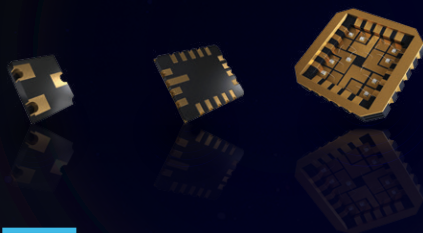


THE NEW BIG-THING



4-5 years operational life
less extreme environment
requirement beyond **COTS**

MULTI-CHIP ARRAY RANGE



- Transistors, Arrays
- 25 Part Numbers
- All available as NS1, NS2 or custom variants

DISCRETE RANGE



- BJT's, Diodes, JFET's, MOSFETs, Schottky Barrier
- 54 Part Numbers
- All available as NS1, NS2 or custom variants

TT Electronics has over
30 years experience
of lowering the cost
of space products



Environmental screening
as required for the mission



Using packaging to meet
mission requirements



Fully traceable die
with space heritage



Giving the customer
repeatable performance



Testing to verify known
radiation performance



Element evaluation of
aerospace grade die to
lower the cost

CONTACT

www.ttelectronics.com

www.ttieurope.com

RELIABILITY AND COST PROVEN



TT Electronics

TT Electronics provide the component solution required for customer and mission needs, for Deep Space, G.E.O or L.E.O orbits

BASELINE SCREENING OPTIONS

The sequence below provides an assurance basis with manufacture utilising robust, controlled, space proven processes and designs, including traceability to all materials and operations. NS2 adds baseline mechanical and electrical screening to provide the next level of assurance.

NEW SPACE SCREENING REQUIREMENTS ^{1,2}

Step	Screen	Condition	NS1	NS2
1	Internal visual inspection ⁵		100%	100%
2	High temperature non-operating life (stabilization bake)	TSTG $\leq$ maximum rated storage temp t = as specified	100%	100%
3	Temperature cycling	5 cycles. -55°C to +125°C or as specified in maximum ratings		100%
4	Constant acceleration ⁴	Y ₁ direction		100%
5	Serialization	Constant acceleration	100%	100%
6	Initial electrical test	DC electrical attributes as specified		100%
7	Burn-in ³	Operating or reverse biased as specified. 48 hours (minimum)		100%
8	Final electrical test	DC electrical attributes as specified	100%	100%
9	Hermetic seal ⁴	Fine & Gross Leak Detection		100%
10	External visual examination		100%	100%

Notes:

1) All screening operations are performed in accordance with MIL-STD-750 or equivalent ESA methods.

2) All products can be screened in accordance with the full MIL-STD-19500 or ESA 5000 generic standard flows – contact TT Electronics Sales.

3) Conditions for burn-in are set according to the device type and standard operating conditions for ambient or case rated devices.

4) Applicable for cavity devices, plastics excluded.

5) Internal visual inspection carried out by TT Electronics in accordance with appropriate standard – only on cavity devices.