



## TEMPERATURE CYCLING

### MIL-STD 883 Method 1010

**PURPOSE.** This test is conducted to determine the resistance of a part to extremes of high and low temperatures, and to the effect of alternate exposures to these extremes.

#### Test Results

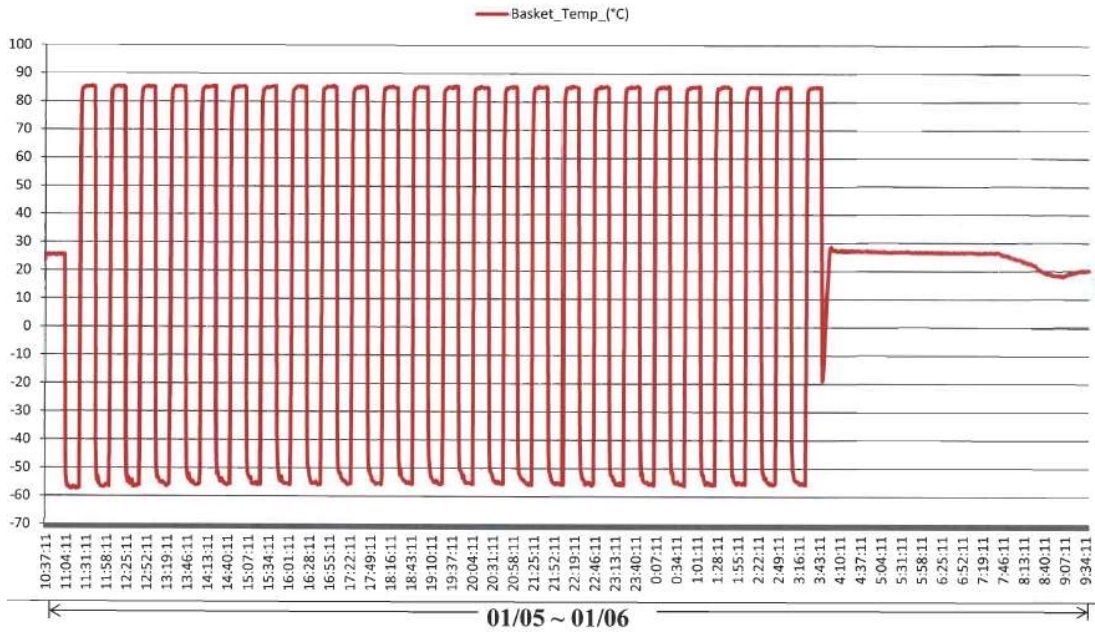
Part Type	Description	Condition	Sample Size	Date	Results
BT-0010SMG-2	Bias Tee 20 MHz to 10 GHz	125°C to -55°C 500 Cycles 10 minutes soak	21	12/26/18	Pass
MT3-0113LCQG-2	MMIC T3 COTS Mixer RF 1.5 - 13	125°C to -55°C 500 Cycles 10 minutes soak	19	12/14/18	Pass
MM2K-0530LCH-2	MMIC Mixer 5 - 30 GHz	150°C to -65°C 10 Cycles 10 minutes soak	12	8/1/18	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	21	5/5/2018	Pass
M1-0420LP	Mixer RF 4-20 GHz +7 dBm A pkg	125°C to -55°C 100 Cycles 10 minutes soak	3	2/5/18	Pass
M1-0420HP	Mixer RF 4-20 GHz +16 dBm A pkg	125°C to -55°C 100 Cycles 10 minutes soak	3	2/5/18	Pass
MM1K-1140HCH-2	MMIC Mixer RF 11 - 40 GHz	150°C to -65°C 10 Cycles 10 minutes soak	12	11/20/17	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	81	10/25/2017	Pass
BT - Bias Tee	Bias Tee Surface Mount	100°C to -40°C 300 Cycles 15 minutes soak	215	10/16/2017	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	73	5/26/2017	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	63	1/6/2017	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	29	9/17/2016	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	31	3/26/2016	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	27	2/8/2016	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	42	1/29/2016	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	38	1/19/2016	Pass
T3A Mixer	T3 Mixer with integrated amp	85°C to -55°C 25 Cycles 15 minutes soak	68	12/21/2015	Pass

The T3A Mixer is one of the most complicated devices built at Marki Microwave. By using this device as our qualification vehicle, it effectively qualifies all of the materials and processes used in all of our various products.

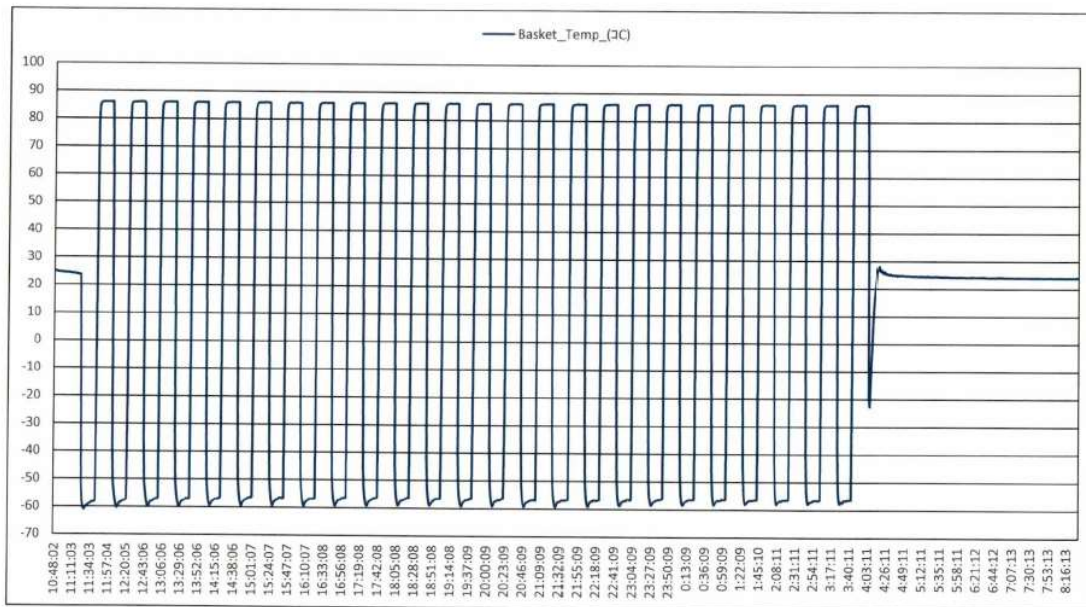
This T3 Mixer with integrated amp technology utilizes: wire bonding, epoxy die attach, PCB soldering and hermetic seal. The T3 Mixer with integrated amp contains 63/37 solder, Ferrite Cores, Bi-filar wires, 100 mil Conical coils, chip capacitors, Integrated chip Amplifier, 0402 capacitors and resistors, kovar standoffs and T3 Mixer diodes.

By similarity any product using the same assembly techniques and materials can use these results for qualification.

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