

High Temperature Operating Life(HTOL)

MIL-STD 883 Method 1005

PURPOSE: This stress is used to identify any failure mechanisms accelerated by DC bias and elevated temperature that could occur during the lifetime of the product under test. Typical failure mechanisms that may occur include gate oxide breakdown, ionic contamination, and electromigration for silicon (Si) technologies, or gate sinking, ohmic contact degradation, and trap generation for gallium arsenide (GaAs) and gallium nitride (GaN) technologies. Process and/or assembly defects may be detected by this test in either technology. Devices are biased and operated at junction temperatures between 100°C and 160°C. MIL-STD-883 Method 1015 is used as a guideline.

Test Results

Part	Description	Condition	Sample Size	Date	Results
ADM1-0026PA	MMIC Broadband Distributed AMP	500 Hrs@100°C RF 19dBm at 5GHz	1	3/28/19	Pass
PD-0R510	Power divider, 0.5 to 10 GHz	500 Hrs@100°C RF 19dBm at 5GHz	3	3/28/19	Pass
MT3-0113LCQG-2	MMIC T3 COTS Mixer RF 1.5 - 13	500 Hrs@100°C RF 19dBm at 5GHz	6	3/28/19	Pass
PD4-0126	4-way power divider, 1-26 GHz	540 Hrs@100°C RF 20dBm at 5GHz	1	2/21/19	Pass
ADM1-0026PA	MMIC Broadband Distributed AMP	540 Hrs@100°C RF 20dBm at 5GHz	4	2/21/19	Pass
PD-0R510	Power divider, 0.5 to 10 GHz	540 Hrs@100°C RF 20dBm at 5GHz	3	2/21/19	Pass
MT3-0113LCQG-2	MMIC T3 COTS Mixer RF 1.5 - 13	540 Hrs@100°C RF 20dBm at 5GHz	6	2/21/19	Pass
A-0015E2P	Amp 5 MHz-15 GHz	1000 Hrs@100°C Rf 17dBm at 5Ghz	3	1/24/19	Pass
PD4-0126	4-way power divider, 1-26 GHz	1000 Hrs@100°C Rf 17dBm at 5Ghz	3	1/24/19	Pass
MM2K-0530LCH-2	MMIC Mixer RF 5-30 GHz +9 to17	1000 Hrs@100°C Rf 17dBm at 5Ghz	12	1/24/19	Pass
MM2K-0530LCH-2	MMIC Mixer RF 5-30 GHz +9 to17	1469 Hrs@125°C Rf 17dBm at 5Ghz	10	10/22/18	Pass
PD4-0126	4-way power divider, 1-26 GHz	1469 Hrs@125°C Rf 17dBm at 5Ghz	3	10/22/18	Pass
PD-0020G	Power Divider DC-20 GHz	1187 Hrs@100°C If = 4.5mA	8	10/10/18	Pass
M1-0420HP	Mixer RF 4-20 GHz +16 dBm A pkg	1000 Hrs@125°C, If = +12.8mA(500Hrs)&If = -12.8 (500Hrs)	10	4/20/18	Pass
M1-0420LP	Mixer RF 4-20 GHz +7 dBm A pkg	1000 Hrs@125°C, If = +12.8mA(500Hrs)&If = -12.8 (500)	10	3/27/18	Pass
MM1K-1140HCH-2	MMIC Mixer RF 11 - 40 GHz +15	1320 Hrs@125°C, If = +4.5mA(500Hrs)& If = -4.5mA (500Hrs)	10	2/6/18	Pass
M1-0420HP	Mixer RF 4-20 GHz +16 dBm A pkg	500 Hrs@125°C, Rf +17dBm	24	5/30/17	Pass
M1-0420LP	Mixer RF 4-20 GHz +7 dBm A pkg	500 Hrs @ 125°C, Rf +12sBm	24	5/30/17	Pass

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