

MST-0422

MWA analogue signal conditioning module

Test: Temperature run

Note: only for pre-production units or samples

Serial number: 002

Tester: C. Coleman

Date: 20/12/2010

Test procedure

1. Put ASC module in environmental chamber
2. Connect 8 sets of extension cables out to where they can be connected to the mobile VNA
3. Set all attenuators to 0dB
 - ✓ *Verify frequency response and gain of all 8 channels at 25C*
 - ✓ *Repeat for 45C and 5C*
4. Power down and cycle temperature from -5C to 80C, 5C/min ramps and 15min dwell
 - ✓ *Repeat measurements of frequency response and gain*

Comments

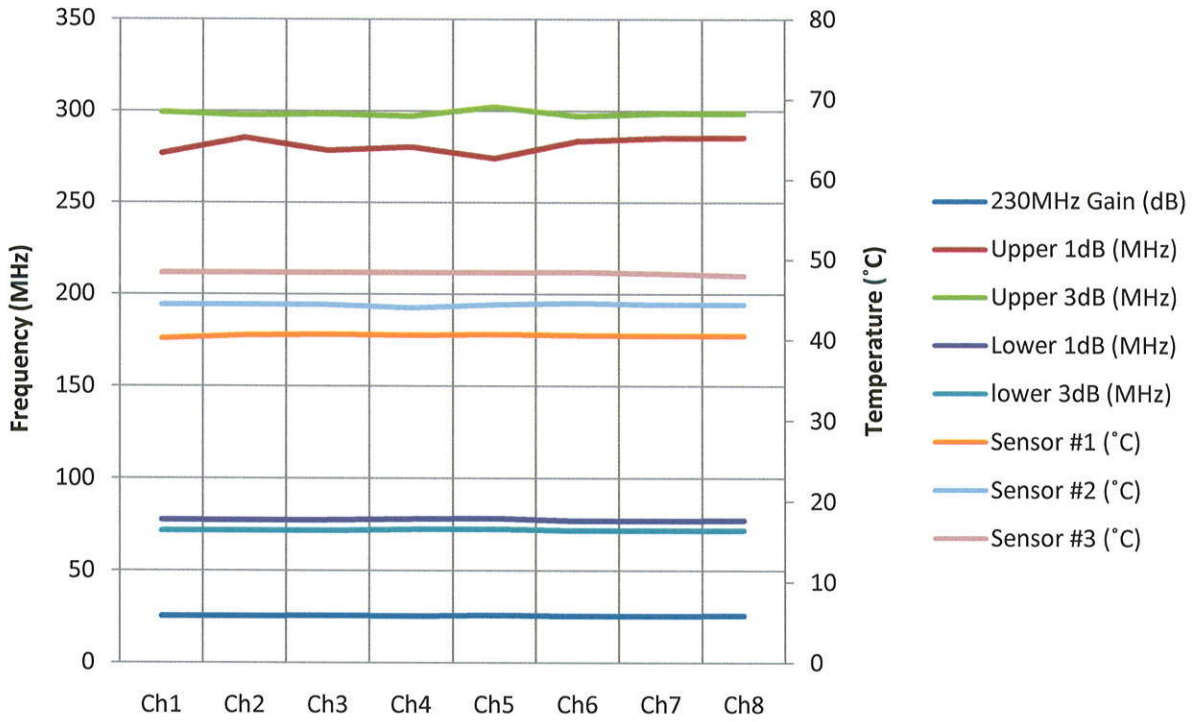
25°C						Temperature		
	230MHz Gain (dB)	Upper 1dB (MHz)	Upper 3dB (MHz)	Lower 1dB (MHz)	lower 3dB (MHz)	Sensor #1 (°C)	Sensor #2 (°C)	Sensor #3 (°C)
Ch1	25.3	276.8	299.4	77.6	71.7	40.2	44.4	48.4
Ch2	25.4	285.3	297.6	77.2	71.9	40.6	44.4	48.4
Ch3	25.6	278.4	298.4	77.4	71.7	40.7	44.4	48.4
Ch4	25.4	280.3	297.1	77.9	72.3	40.6	44	48.4
Ch5	25.8	274.1	302.2	78.2	72.6	40.7	44.4	48.4
Ch6	25.3	283.5	297.1	76.9	71.7	40.6	44.6	48.5
Ch7	25.3	285.2	298.6	76.9	71.6	40.5	44.4	48.3
Ch8	25.6	285.6	298.6	77.2	71.8	40.5	44.4	48

45°C						Temperature		
	230MHz Gain (dB)	Upper 1dB (MHz)	Upper 3dB (MHz)	Lower 1dB (MHz)	lower 3dB (MHz)	Sensor #1 (°C)	Sensor #2 (°C)	Sensor #3 (°C)
Ch1	25.1	280.5	299.2	77.2	71.7	57.8	64	67
Ch2	25.2	285.1	297.5	77.2	71.8	57.8	63.9	66.7
Ch3	25.4	275.2	297.6	77.4	71.5	57.8	63.9	66.5
Ch4	25	281.9	297.3	77.6	72.1	58.2	63.7	66.7
Ch5	25.7	272.3	301.4	78.6	72.7	58.2	64.2	66.7
Ch6	25	283.1	296.5	76.9	71.7	58.3	64.3	66.8
Ch7	25.1	284.7	298	76.9	71.7	58.2	64.3	66.9
Ch8	25.2	284.9	298.4	77.2	71.9	58.2	64.3	66.4

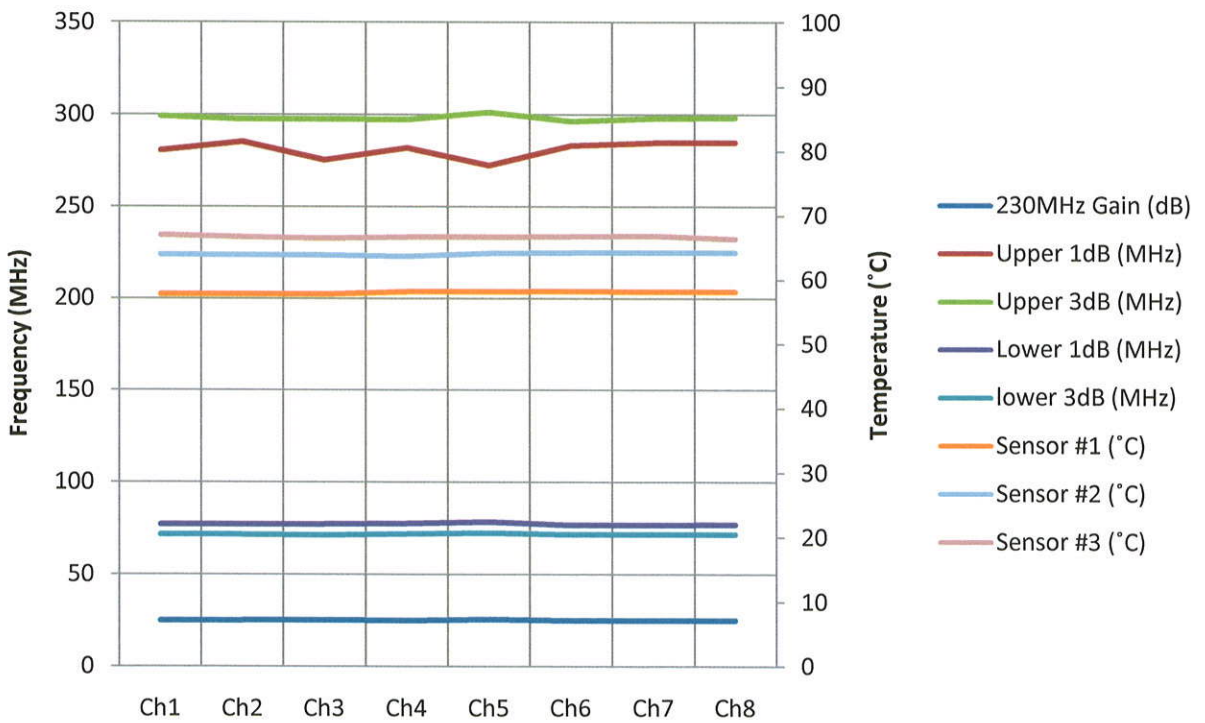
5°C						Temperature		
	230MHz Gain (dB)	Upper 1dB (MHz)	Upper 3dB (MHz)	Lower 1dB (MHz)	lower 3dB (MHz)	Sensor #1 (°C)	Sensor #2 (°C)	Sensor #3 (°C)
Ch1	25.5	283.1	302.9	77.2	71.7	17.7	24.8	28.9
Ch2	25.8	284.9	298	77.6	72.1	18.3	24.9	28.9
Ch3	25.9	278.2	298.8	77.2	71.7	18	24.7	28.9
Ch4	25.6	282.3	297.8	77.8	72.3	18.2	24.4	28.8
Ch5	26.1	274.2	302.6	77.9	72.7	17.9	24.8	28.7
Ch6	25.5	285.8	297.6	76.6	71.7	17.8	24.6	28.6
Ch7	25.6	286.6	299.2	76.6	71.7	17.9	24.8	28.7
Ch8	25.9	286.6	299.4	77.4	72.1	17.9	24.7	28.3

After Temp Cycle						Temperature		
	230MHz Gain (dB)	Upper 1dB (MHz)	Upper 3dB (MHz)	Lower 1dB (MHz)	lower 3dB (MHz)	Sensor #1 (°C)	Sensor #2 (°C)	Sensor #3 (°C)
Ch1	25.6	277.9	298.6	78.9	71.9	37.4	43	45.9
Ch2	25.6	283.5	297.5	77.6	72.1	38.5	44.5	47.5
Ch3	25.7	276.6	298.2	77.2	71.5	38.6	44.9	47.7
Ch4	25.4	281.7	297.3	78.2	72.1	38.6	44.5	48
Ch5	25.8	275.8	302.4	77.4	72.3	38.7	45	48.3
Ch6	25.4	283.7	296.9	77.2	71.7	38.7	45.1	48.3
Ch7	25.4	285.5	298.6	77.2	71.7	38.8	45.1	48.3
Ch8	25.6	285.8	298.8	77.4	71.8	38.8	45.2	47.9

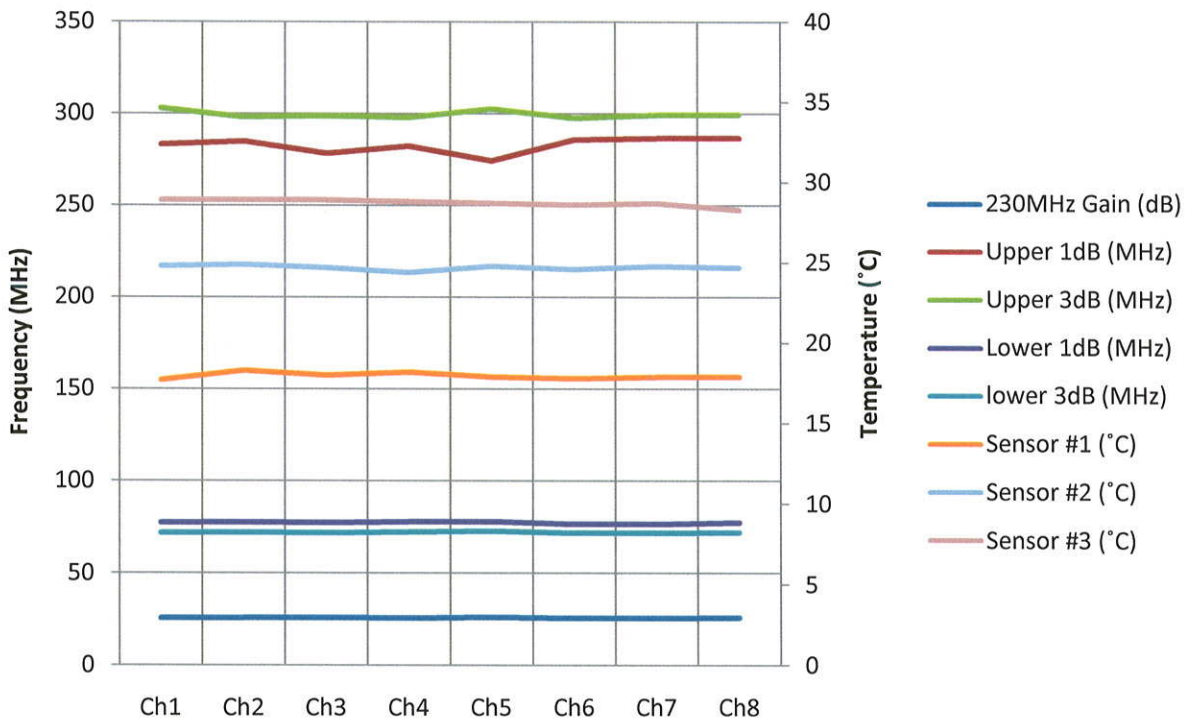
25°C Results



45°C Results



5°C Results



After Temp Cycle Results

