

MCE48 with MUX11d, SSA, TES

When Instrument Backplane Rev C is installed, only single-ended bias lines (DET_BIAS) are routed to the MDMs to be used as TES bias

MDM - P1			
Pin	Sig Hi	Sig Lo	Pin
26		Shield	
51	SP1_00	SP1_RET_00	100
25	SP1_01	SP1_RET_01	75
50	SP1_02	SP1_RET_02	99
24	RS_40	RS_RET_40	74
49	RS_0	RS_RET_0	98
23	RS_1	RS_RET_1	73
48	RS_2	RS_RET_2	97
22	RS_3	RS_RET_3	72
47	RS_4	RS_RET_4	96
21	RS_5	RS_RET_5	71
46	RS_6	RS_RET_6	95
20	RS_7	RS_RET_7	70
45	RS_08	RS_RET_8	94
19	RS_09	RS_RET_9	69
44	RS_10	RS_RET_10	93
18	RS_11	RS_RET_11	68
43	RS_12	RS_RET_12	92
17	RS_13	RS_RET_13	67
42	RS_14	RS_RET_14	91
16	RS_15	RS_RET_15	66
41	RS_16	RS_RET_16	90
15	RS_17	RS_RET_17	65
40	RS_18	RS_RET_18	89
14	RS_19	RS_RET_19	64
39	RS_20	RS_RET_20	88
13	RS_21	RS_RET_21	63
38	RS_22	RS_RET_22	87
12	RS_23	RS_RET_23	62
37	RS_24	RS_RET_24	86
11	RS_25	RS_RET_25	61
36	RS_26	RS_RET_26	85
10	RS_27	RS_RET_27	60
35	RS_28	RS_RET_28	84
9	RS_29	RS_RET_29	59
34	RS_30	RS_RET_30	83
8	RS_31	RS_RET_31	58
33	RS_32	RS_RET_32	82
7	RS_33	RS_RET_33	57
32	RS_34	RS_RET_34	81
6	RS_35	RS_RET_35	56
31	RS_36	RS_RET_36	80
5	RS_37	RS_RET_37	55
30	RS_38	RS_RET_38	79
4	RS_39	RS_RET_39	54
29	SP1_03	SP1_RET_03	78
3	SP1_04	SP1_RET_04	53
28	SP1_05	SP1_RET_05	77
2	SP1_06	SP1_RET_06	52
27	SP1_07	SP1_RET_07	76
1		Shield	

MUXO

MDM - P2			
Pin	Sig Hi	Sig Lo	Pin
26		Shield	
51	DET_BIAS_07	DET_BIAS_RET_07	100
25	DET_BIAS_06	DET_BIAS_RET_06	75
50	DET_BIAS_05	DET_BIAS_RET_05	99
24	S1_FB_07	S1_FB_RET_07	74
49	S1_BIAS_07	S1_BIAS_RET_07	98
23	SSA_SIG_07	SSA_SIG_RET_07	73
48	SSA_FB_07	SSA_FB_RET_07	97
22	SPARE_BIAS_07	SPARE_BIAS_RET_07	72
47	S1_FB_06	S1_FB_RET_06	96
21	S1_BIAS_06	S1_BIAS_RET_06	71
46	SSA_SIG_06	SSA_SIG_RET_06	95
20	SSA_FB_06	SSA_FB_RET_06	70
45	SPARE_BIAS_06	SPARE_BIAS_RET_06	94
19	S1_FB_05	S1_FB_RET_05	69
44	S1_BIAS_05	S1_BIAS_RET_05	93
18	SSA_SIG_05	SSA_SIG_RET_05	68
43	SSA_FB_05	SSA_FB_RET_05	92
17	SPARE_BIAS_05	SPARE_BIAS_RET_05	67
42	S1_FB_04	S1_FB_RET_04	91
16	S1_BIAS_04	S1_BIAS_RET_04	66
41	SSA_SIG_04	SSA_SIG_RET_04	90
15	SSA_FB_04	SSA_FB_RET_04	65
40	SPARE_BIAS_04	SPARE_BIAS_RET_04	89
14	S1_FB_03	S1_FB_RET_03	64
39	S1_BIAS_03	S1_BIAS_RET_03	88
13	SSA_SIG_03	SSA_SIG_RET_03	63
38	SSA_FB_03	SSA_FB_RET_03	87
12	SPARE_BIAS_03	SPARE_BIAS_RET_03	62
37	S1_FB_02	S1_FB_RET_02	86
11	S1_BIAS_02	S1_BIAS_RET_02	61
36	SSA_SIG_02	SSA_SIG_RET_02	85
10	SSA_FB_02	SSA_FB_RET_02	60
35	SPARE_BIAS_02	SPARE_BIAS_RET_02	84
9	S1_FB_01	S1_FB_RET_01	59
34	S1_BIAS_01	S1_BIAS_RET_01	83
8	SSA_SIG_01	SSA_SIG_RET_01	58
33	SSA_FB_01	SSA_FB_RET_01	82
7	SPARE_BIAS_01	SPARE_BIAS_RET_01	57
32	S1_FB_00	S1_FB_RET_00	81
6	S1_BIAS_00	S1_BIAS_RET_00	56
31	SSA_SIG_00	SSA_SIG_RET_00	80
5	SSA_FB_00	SSA_FB_RET_00	55
30	SPARE_BIAS_00	SPARE_BIAS_RET_00	79
4	DET_BIAS_08	DET_BIAS_RET_08	54
29	DET_BIAS_00	DET_BIAS_RET_00	78
3	DET_BIAS_04	DET_BIAS_RET_04	53
28	DET_BIAS_03	DET_BIAS_RET_03	77
2	DET_BIAS_02	DET_BIAS_RET_02	52
27	DET_BIAS_01	DET_BIAS_RET_01	76
1		Shield	

MDM - P3			
Pin	Sig Hi	Sig Lo	Pin
26		Shield	
51	DET_BIAS_15	DET_BIAS_RET_15	100
25	DET_BIAS_14	DET_BIAS_RET_14	75
50	DET_BIAS_13	DET_BIAS_RET_13	99
24	S1_FB_15	S1_FB_RET_15	74
49	S1_BIAS_15	S1_BIAS_RET_15	98
23	SSA_SIG_15	SSA_SIG_RET_15	73
48	SSA_FB_15	SSA_FB_RET_15	97
22	SPARE_BIAS_15	SPARE_BIAS_RET_15	72
47	S1_FB_14	S1_FB_RET_14	96
21	S1_BIAS_14	S1_BIAS_RET_14	71
46	SSA_SIG_14	SSA_SIG_RET_14	95
20	SSA_FB_14	SSA_FB_RET_14	70
45	SPARE_BIAS_14	SPARE_BIAS_RET_14	94
19	S1_FB_13	S1_FB_RET_13	69
44	S1_BIAS_13	S1_BIAS_RET_13	93
18	SSA_SIG_13	SSA_SIG_RET_13	68
43	SSA_FB_13	SSA_FB_RET_13	92
17	SPARE_BIAS_13	SPARE_BIAS_RET_13	67
42	S1_FB_12	S1_FB_RET_12	91
16	S1_BIAS_12	S1_BIAS_RET_12	66
41	SSA_SIG_12	SSA_SIG_RET_12	90
15	SSA_FB_12	SSA_FB_RET_12	65
40	SPARE_BIAS_12	SPARE_BIAS_RET_12	89
14	S1_FB_11	S1_FB_RET_11	64
39	S1_BIAS_11	S1_BIAS_RET_11	88
13	SSA_SIG_11	SSA_SIG_RET_11	63
38	SSA_FB_11	SSA_FB_RET_11	87
12	SPARE_BIAS_11	SPARE_BIAS_RET_11	62
37	S1_FB_10	S1_FB_RET_10	86
11	S1_BIAS_10	S1_BIAS_RET_10	61
36	SSA_SIG_10	SSA_SIG_RET_10	85
10	SSA_FB_10	SSA_FB_RET_10	60
35	SPARE_BIAS_10	SPARE_BIAS_RET_10	84
9	S1_FB_09	S1_FB_RET_09	59
34	S1_BIAS_09	S1_BIAS_RET_09	83
8	SSA_SIG_09	SSA_SIG_RET_09	58
33	SSA_FB_09	SSA_FB_RET_09	82
7	SPARE_BIAS_09	SPARE_BIAS_RET_09	57
32	S1_FB_08	S1_FB_RET_08	81
6	S1_BIAS_08	S1_BIAS_RET_08	56
31	SSA_SIG_08	SSA_SIG_RET_08	80
5	SSA_FB_08	SSA_FB_RET_08	55
30	SPARE_BIAS_08	SPARE_BIAS_RET_08	79
4	DET_BIAS_ORG	DET_BIAS_ORG_RET	54
29	PXL_HTR	PXL_HTR_RET	78
3	DET_BIAS_12	DET_BIAS_RET_12	53
28	DET_BIAS_11	DET_BIAS_RET_11	77
2	DET_BIAS_10	DET_BIAS_RET_10	52
27	DET_BIAS_09	DET_BIAS_RET_09	76
1		Shield	

2. DET_BIAS and SPARE_BIAS are single ended
3. Wiring more than 1 multiplexer currently not supported in firmware/software

MCE48 with MUX11d, SSA, TES

When Instrument backplane Rev D is installed, differential bias lines are routed to the MDM to be used as TES bias

MDM - P1			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	SP1_00	SP1_RET_00	100
25	SP1_01	SP1_RET_01	75
50	SP1_02	SP1_RET_02	99
24	RS_40	RS_RET_40	74
49	RS_0	RS_RET_0	98
23	RS_1	RS_RET_1	73
48	RS_2	RS_RET_2	97
22	RS_3	RS_RET_3	72
47	RS_4	RS_RET_4	96
21	RS_5	RS_RET_5	71
46	RS_6	RS_RET_6	95
20	RS_7	RS_RET_7	70
45	RS_08	RS_RET_8	94
19	RS_09	RS_RET_9	69
44	RS_10	RS_RET_10	93
18	RS_11	RS_RET_11	68
43	RS_12	RS_RET_12	92
17	RS_13	RS_RET_13	67
42	RS_14	RS_RET_14	91
16	RS_15	RS_RET_15	66
41	RS_16	RS_RET_16	90
15	RS_17	RS_RET_17	65
40	RS_18	RS_RET_18	89
14	RS_19	RS_RET_19	64
39	RS_20	RS_RET_20	88
13	RS_21	RS_RET_21	63
38	RS_22	RS_RET_22	87
12	RS_23	RS_RET_23	62
37	RS_24	RS_RET_24	86
11	RS_25	RS_RET_25	61
36	RS_26	RS_RET_26	85
10	RS_27	RS_RET_27	60
35	RS_28	RS_RET_28	84
9	RS_29	RS_RET_29	59
34	RS_30	RS_RET_30	83
8	RS_31	RS_RET_31	58
33	RS_32	RS_RET_32	82
7	RS_33	RS_RET_33	57
32	RS_34	RS_RET_34	81
6	RS_35	RS_RET_35	56
31	RS_36	RS_RET_36	80
5	RS_37	RS_RET_37	55
30	RS_38	RS_RET_38	79
4	RS_39	RS_RET_39	54
29	SP1_03	SP1_RET_03	78
3	SP1_04	SP1_RET_04	53
28	SP1_05	SP1_RET_05	77
2	SP1_06	SP1_RET_06	52
27	SP1_07	SP1_RET_07	76
1	Shield		

MUX0

MDM - P2			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	LN_BIAS_07	LN_BIAS_RET_07	100
25	LN_BIAS_06	LN_BIAS_RET_06	75
50	LN_BIAS_05	LN_BIAS_RET_05	99
24	S1_FB_07	S1_FB_RET_07	74
49	SPARE_BIAS_07	SPARE_BIAS_RET_07	98
23	SSA_SIG_07	SSA_SIG_RET_07	73
48	SSA_FB_07	SSA_FB_RET_07	97
22	S1_BIAS_07	S1_BIAS_RET_07	72
47	S1_FB_06	S1_FB_RET_06	96
21	SPARE_BIAS_06	SPARE_BIAS_RET_06	71
46	SSA_SIG_06	SSA_SIG_RET_06	95
20	SSA_FB_06	SSA_FB_RET_06	70
45	S1_BIAS_06	S1_BIAS_RET_06	94
19	S1_FB_05	S1_FB_RET_05	69
44	SPARE_BIAS_05	SPARE_BIAS_RET_05	93
18	SSA_SIG_05	SSA_SIG_RET_05	68
43	SSA_FB_05	SSA_FB_RET_05	92
17	S1_BIAS_05	S1_BIAS_RET_05	67
42	S1_FB_04	S1_FB_RET_04	91
16	SPARE_BIAS_04	SPARE_BIAS_RET_04	66
41	SSA_SIG_04	SSA_SIG_RET_04	90
15	SSA_FB_04	SSA_FB_RET_04	65
40	S1_BIAS_04	S1_BIAS_RET_04	89
14	S1_FB_03	S1_FB_RET_03	64
39	SPARE_BIAS_03	SPARE_BIAS_RET_03	88
13	SSA_SIG_03	SSA_SIG_RET_03	63
38	SSA_FB_03	SSA_FB_RET_03	87
12	S1_BIAS_03	S1_BIAS_RET_03	62
37	S1_FB_02	S1_FB_RET_02	86
11	SPARE_BIAS_02	SPARE_BIAS_RET_02	61
36	SSA_SIG_02	SSA_SIG_RET_02	85
10	SSA_FB_02	SSA_FB_RET_02	60
35	S1_BIAS_02	S1_BIAS_RET_02	84
9	S1_FB_01	S1_FB_RET_01	59
34	SPARE_BIAS_01	SPARE_BIAS_RET_01	83
8	SSA_SIG_01	SSA_SIG_RET_01	58
33	SSA_FB_01	SSA_FB_RET_01	82
7	S1_BIAS_01	S1_BIAS_RET_01	57
32	S1_FB_00	S1_FB_RET_00	81
6	SPARE_BIAS_00	SPARE_BIAS_RET_00	56
31	SSA_SIG_00	SSA_SIG_RET_00	80
5	SSA_FB_00	SSA_FB_RET_00	55
30	S1_BIAS_00	S1_BIAS_RET_00	79
4	LN_BIAS_08	LN_BIAS_RET_08	54
29	LN_BIAS_00	LN_BIAS_RET_00	78
3	LN_BIAS_04	LN_BIAS_RET_04	53
28	LN_BIAS_03	LN_BIAS_RET_03	77
2	LN_BIAS_02	LN_BIAS_RET_02	52
27	LN_BIAS_01	LN_BIAS_RET_01	76
1	Shield		

MDM - P3			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	LN_BIAS_15	LN_BIAS_RET_15	100
25	LN_BIAS_14	LN_BIAS_RET_14	75
50	LN_BIAS_13	LN_BIAS_RET_13	99
24	S1_FB_15	S1_FB_RET_15	74
49	SPARE_BIAS_15	SPARE_BIAS_RET_15	98
23	SSA_SIG_15	SSA_SIG_RET_15	73
48	SSA_FB_15	SSA_FB_RET_15	97
22	S1_BIAS_15	S1_BIAS_RET_15	72
47	S1_FB_14	S1_FB_RET_14	96
21	SPARE_BIAS_14	SPARE_BIAS_RET_14	71
46	SSA_SIG_14	SSA_SIG_RET_14	95
20	SSA_FB_14	SSA_FB_RET_14	70
45	S1_BIAS_14	S1_BIAS_RET_14	94
19	S1_FB_13	S1_FB_RET_13	69
44	SPARE_BIAS_13	SPARE_BIAS_RET_13	93
18	SSA_SIG_13	SSA_SIG_RET_13	68
43	SSA_FB_13	SSA_FB_RET_13	92
17	S1_BIAS_13	S1_BIAS_RET_13	67
42	S1_FB_12	S1_FB_RET_12	91
16	SPARE_BIAS_12	SPARE_BIAS_RET_12	66
41	SSA_SIG_12	SSA_SIG_RET_12	90
15	SSA_FB_12	SSA_FB_RET_12	65
40	S1_BIAS_12	S1_BIAS_RET_12	89
14	S1_FB_11	S1_FB_RET_11	64
39	SPARE_BIAS_11	SPARE_BIAS_RET_11	88
13	SSA_SIG_11	SSA_SIG_RET_11	63
38	SSA_FB_11	SSA_FB_RET_11	87
12	S1_BIAS_11	S1_BIAS_RET_11	62
37	S1_FB_10	S1_FB_RET_10	86
11	SPARE_BIAS_10	SPARE_BIAS_RET_10	61
36	SSA_SIG_10	SSA_SIG_RET_10	85
10	SSA_FB_10	SSA_FB_RET_10	60
35	S1_BIAS_10	S1_BIAS_RET_10	84
9	S1_FB_09	S1_FB_RET_09	59
34	SPARE_BIAS_09	SPARE_BIAS_RET_09	83
8	SSA_SIG_09	SSA_SIG_RET_09	58
33	SSA_FB_09	SSA_FB_RET_09	82
7	S1_BIAS_09	S1_BIAS_RET_09	57
32	S1_FB_08	S1_FB_RET_08	81
6	SPARE_BIAS_08	SPARE_BIAS_RET_08	56
31	SSA_SIG_08	SSA_SIG_RET_08	80
5	SSA_FB_08	SSA_FB_RET_08	55
30	S1_BIAS_08	S1_BIAS_RET_08	79
4	DET_BIAS_ORG	DET_BIAS_ORG_RET	54
29	PXL_HTR	PXL_HTR_RET	78
3	LN_BIAS_12	LN_BIAS_RET_12	53
28	LN_BIAS_11	LN_BIAS_RET_11	77
2	LN_BIAS_10	LN_BIAS_RET_10	52
27	LN_BIAS_09	LN_BIAS_RET_09	76
1	Shield		

1. SPARE_BIAS lines, DT_BIAS_ORG, and LN_BIAS_10 to LN_BIAS_15 are on BC2, so if you are not using them you do not need BC2.
- 2.SPARE_BIAS lines are single ended
3. Wiring more than 1 multiplexer currently not supported in firmware/software

MCE48 with SQ2, SQ1, SSA, TES

When Instrument Backplane Rev C is installed, only single-ended bias lines (DET_BIAS) are routed to the MDMs to be used as TES bias

MDM - Test Connector		
Pin	- Resistor -	Pin
26	none	
51	50 ohm	100
25	50 ohm	75
50	50 ohm	99
24	50 ohm	74
49	50 ohm	98
23	50 ohm	73
48	50 ohm	97
22	50 ohm	72
47	50 ohm	96
21	50 ohm	71
46	50 ohm	95
20	50 ohm	70
45	50 ohm	94
19	50 ohm	69
44	50 ohm	93
18	50 ohm	68
43	50 ohm	92
17	50 ohm	67
42	50 ohm	91
16	50 ohm	66
41	50 ohm	90
15	50 ohm	65
40	50 ohm	89
14	50 ohm	64
39	50 ohm	88
13	50 ohm	63
38	50 ohm	87
12	50 ohm	62
37	50 ohm	86
11	50 ohm	61
36	50 ohm	85
10	50 ohm	60
35	50 ohm	84
9	50 ohm	59
34	50 ohm	83
8	50 ohm	58
33	50 ohm	82
7	50 ohm	57
32	50 ohm	81
6	50 ohm	56
31	50 ohm	80
5	50 ohm	55
30	50 ohm	79
4	50 ohm	54
29	50 ohm	78
3	50 ohm	53
28	50 ohm	77
2	50 ohm	52
27	50 ohm	76
1	none	

MDM - P1			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	SP1_00	SP1_RET_00	100
25	SP1_01	SP1_RET_01	75
50	SP1_02	SP1_RET_02	99
24	RS_40	RS_RET_40	74
49	RS_0	RS_RET_0	98
23	RS_1	RS_RET_1	73
48	RS_2	RS_RET_2	97
22	RS_3	RS_RET_3	72
47	RS_4	RS_RET_4	96
21	RS_5	RS_RET_5	71
46	RS_6	RS_RET_6	95
20	RS_7	RS_RET_7	70
45	RS_08	RS_RET_8	94
19	RS_09	RS_RET_9	69
44	RS_10	RS_RET_10	93
18	RS_11	RS_RET_11	68
43	RS_12	RS_RET_12	92
17	RS_13	RS_RET_13	67
42	RS_14	RS_RET_14	91
16	RS_15	RS_RET_15	66
41	RS_16	RS_RET_16	90
15	RS_17	RS_RET_17	65
40	RS_18	RS_RET_18	89
14	RS_19	RS_RET_19	64
39	RS_20	RS_RET_20	88
13	RS_21	RS_RET_21	63
38	RS_22	RS_RET_22	87
12	RS_23	RS_RET_23	62
37	RS_24	RS_RET_24	86
11	RS_25	RS_RET_25	61
36	RS_26	RS_RET_26	85
10	RS_27	RS_RET_27	60
35	RS_28	RS_RET_28	84
9	RS_29	RS_RET_29	59
34	RS_30	RS_RET_30	83
8	RS_31	RS_RET_31	58
33	RS_32	RS_RET_32	82
7	RS_33	RS_RET_33	57
32	RS_34	RS_RET_34	81
6	RS_35	RS_RET_35	56
31	RS_36	RS_RET_36	80
5	RS_37	RS_RET_37	55
30	RS_38	RS_RET_38	79
4	RS_39	RS_RET_39	54
29	SP1_03	SP1_RET_03	78
3	SP1_04	SP1_RET_04	53
28	SP1_05	SP1_RET_05	77
2	SP1_06	SP1_RET_06	52
27	SP1_07	SP1_RET_07	76
1	Shield		

MDM - P2			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	DET_BIAS_07	DET_BIAS_RET_07	100
25	DET_BIAS_06	DET_BIAS_RET_06	75
50	DET_BIAS_05	DET_BIAS_RET_05	99
24	S1_FB_07	S1_FB_RET_07	74
49	S2_FB_07	S2_FB_RET_07	98
23	SSA_SIG_07	SSA_SIG_RET_07	73
48	SSA_FB_07	SSA_FB_RET_07	97
22	S2_BIAS_07	S2_BIAS_RET_07	72
47	S1_FB_06	S1_FB_RET_06	96
21	S2_FB_06	S2_FB_RET_06	71
46	SSA_SIG_06	SSA_SIG_RET_06	95
20	SSA_FB_06	SSA_FB_RET_06	70
45	S2_BIAS_06	S2_BIAS_RET_06	94
19	S1_FB_05	S1_FB_RET_05	69
44	S2_FB_05	S2_FB_RET_05	93
18	SSA_SIG_05	SSA_SIG_RET_05	68
43	SSA_FB_05	SSA_FB_RET_05	92
17	S2_BIAS_05	S2_BIAS_RET_05	67
42	S1_FB_04	S1_FB_RET_04	91
16	S2_FB_04	S2_FB_RET_04	66
41	SSA_SIG_04	SSA_SIG_RET_04	90
15	SSA_FB_04	SSA_FB_RET_04	65
40	S2_BIAS_04	S2_BIAS_RET_04	89
14	S1_FB_03	S1_FB_RET_03	64
39	S2_FB_03	S2_FB_RET_03	88
13	SSA_SIG_03	SSA_SIG_RET_03	63
38	SSA_FB_03	SSA_FB_RET_03	87
12	S2_BIAS_03	S2_BIAS_RET_03	62
37	S1_FB_02	S1_FB_RET_02	86
11	S2_FB_02	S2_FB_RET_02	61
36	SSA_SIG_02	SSA_SIG_RET_02	85
10	SSA_FB_02	SSA_FB_RET_02	60
35	S2_BIAS_02	S2_BIAS_RET_02	84
9	S1_FB_01	S1_FB_RET_01	59
34	S2_FB_01	S2_FB_RET_01	83
8	SSA_SIG_01	SSA_SIG_RET_01	58
33	SSA_FB_01	SSA_FB_RET_01	82
7	S2_BIAS_01	S2_BIAS_RET_01	57
32	S1_FB_00	S1_FB_RET_00	81
6	S2_FB_00	S2_FB_RET_00	56
31	SSA_SIG_00	SSA_SIG_RET_00	80
5	SSA_FB_00	SSA_FB_RET_00	55
30	S2_BIAS_00	S2_BIAS_RET_00	79
4	DET_BIAS_08	DET_BIAS_RET_08	54
29	DET_BIAS_00	DET_BIAS_RET_00	78
3	DET_BIAS_04	DET_BIAS_RET_04	53
28	DET_BIAS_03	DET_BIAS_RET_03	77
2	DET_BIAS_02	DET_BIAS_RET_02	52
27	DET_BIAS_01	DET_BIAS_RET_01	76
1	Shield		

MDM - P3			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	DET_BIAS_15	DET_BIAS_RET_15	100
25	DET_BIAS_14	DET_BIAS_RET_14	75
50	DET_BIAS_13	DET_BIAS_RET_13	99
24	S1_FB_15	S1_FB_RET_15	74
49	S2_FB_15	S2_FB_RET_15	98
23	SSA_SIG_15	SSA_SIG_RET_15	73
48	SSA_FB_15	SSA_FB_RET_15	97
22	S2_BIAS_15	S2_BIAS_RET_15	72
47	S1_FB_14	S1_FB_RET_14	96
21	S2_FB_14	S2_FB_RET_14	71
46	SSA_SIG_14	SSA_SIG_RET_14	95
20	SSA_FB_14	SSA_FB_RET_14	70
45	S2_BIAS_14	S2_BIAS_RET_14	94
19	S1_FB_13	S1_FB_RET_13	69
44	S2_FB_13	S2_FB_RET_13	93
18	SSA_SIG_13	SSA_SIG_RET_13	68
43	SSA_FB_13	SSA_FB_RET_13	92
17	S2_BIAS_13	S2_BIAS_RET_13	67
42	S1_FB_12	S1_FB_RET_12	91
16	S2_FB_12	S2_FB_RET_12	66
41	SSA_SIG_12	SSA_SIG_RET_12	90
15	SSA_FB_12	SSA_FB_RET_12	65
40	S2_BIAS_12	S2_BIAS_RET_12	89
14	S1_FB_11	S1_FB_RET_11	64
39	S2_FB_11	S2_FB_RET_11	88
13	SSA_SIG_11	SSA_SIG_RET_11	63
38	SSA_FB_11	SSA_FB_RET_11	87
12	S2_BIAS_11	S2_BIAS_RET_11	62
37	S1_FB_10	S1_FB_RET_10	86
11	S2_FB_10	S2_FB_RET_10	61
36	SSA_SIG_10	SSA_SIG_RET_10	85
10	SSA_FB_10	SSA_FB_RET_10	60
35	S2_BIAS_10	S2_BIAS_RET_10	84
9	S1_FB_09	S1_FB_RET_09	59
34	S2_FB_09	S2_FB_RET_09	83
8	SSA_SIG_09	SSA_SIG_RET_09	58
33	SSA_FB_09	SSA_FB_RET_09	82
7	S2_BIAS_09	S2_BIAS_RET_09	57
32	S1_FB_08	S1_FB_RET_08	81
6	S2_FB_08	S2_FB_RET_08	56
31	SSA_SIG_08	SSA_SIG_RET_08	80
5	SSA_FB_08	SSA_FB_RET_08	55
30	S2_BIAS_08	S2_BIAS_RET_08	79
4	DET_BIAS_ORG	DET_BIAS_ORG_RET	54
29	PXL_HTR	PXL_HTR_RET	78
3	DET_BIAS_12	DET_BIAS_RET_12	53
28	DET_BIAS_11	DET_BIAS_RET_11	77
2	DET_BIAS_10	DET_BIAS_RET_10	52
27	DET_BIAS_09	DET_BIAS_RET_09	76
1	Shield		

MCE48 with SQ2, SQ1, SSA, TES

When Instrument backplane Rev D is installed, differential bias lines are routed to the MDM to be used as TES bias

MDM - Test Connector		
Pin	- Resistor -	Pin
26	none	
51	50 ohm	100
25	50 ohm	75
50	50 ohm	99
24	50 ohm	74
49	50 ohm	98
23	50 ohm	73
48	50 ohm	97
22	50 ohm	72
47	50 ohm	96
21	50 ohm	71
46	50 ohm	95
20	50 ohm	70
45	50 ohm	94
19	50 ohm	69
44	50 ohm	93
18	50 ohm	68
43	50 ohm	92
17	50 ohm	67
42	50 ohm	91
16	50 ohm	66
41	50 ohm	90
15	50 ohm	65
40	50 ohm	89
14	50 ohm	64
39	50 ohm	88
13	50 ohm	63
38	50 ohm	87
12	50 ohm	62
37	50 ohm	86
11	50 ohm	61
36	50 ohm	85
10	50 ohm	60
35	50 ohm	84
9	50 ohm	59
34	50 ohm	83
8	50 ohm	58
33	50 ohm	82
7	50 ohm	57
32	50 ohm	81
6	50 ohm	56
31	50 ohm	80
5	50 ohm	55
30	50 ohm	79
4	50 ohm	54
29	50 ohm	78
3	50 ohm	53
28	50 ohm	77
2	50 ohm	52
27	50 ohm	76
1	none	

MDM - P1			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	SP1_00	SP1_RET_00	100
25	SP1_01	SP1_RET_01	75
50	SP1_02	SP1_RET_02	99
24	RS_40	RS_RET_40	74
49	RS_0	RS_RET_0	98
23	RS_1	RS_RET_1	73
48	RS_2	RS_RET_2	97
22	RS_3	RS_RET_3	72
47	RS_4	RS_RET_4	96
21	RS_5	RS_RET_5	71
46	RS_6	RS_RET_6	95
20	RS_7	RS_RET_7	70
45	RS_08	RS_RET_8	94
19	RS_09	RS_RET_9	69
44	RS_10	RS_RET_10	93
18	RS_11	RS_RET_11	68
43	RS_12	RS_RET_12	92
17	RS_13	RS_RET_13	67
42	RS_14	RS_RET_14	91
16	RS_15	RS_RET_15	66
41	RS_16	RS_RET_16	90
15	RS_17	RS_RET_17	65
40	RS_18	RS_RET_18	89
14	RS_19	RS_RET_19	64
39	RS_20	RS_RET_20	88
13	RS_21	RS_RET_21	63
38	RS_22	RS_RET_22	87
12	RS_23	RS_RET_23	62
37	RS_24	RS_RET_24	86
11	RS_25	RS_RET_25	61
36	RS_26	RS_RET_26	85
10	RS_27	RS_RET_27	60
35	RS_28	RS_RET_28	84
9	RS_29	RS_RET_29	59
34	RS_30	RS_RET_30	83
8	RS_31	RS_RET_31	58
33	RS_32	RS_RET_32	82
7	RS_33	RS_RET_33	57
32	RS_34	RS_RET_34	81
6	RS_35	RS_RET_35	56
31	RS_36	RS_RET_36	80
5	RS_37	RS_RET_37	55
30	RS_38	RS_RET_38	79
4	RS_39	RS_RET_39	54
29	SP1_03	SP1_RET_03	78
3	SP1_04	SP1_RET_04	53
28	SP1_05	SP1_RET_05	77
2	SP1_06	SP1_RET_06	52
27	SP1_07	SP1_RET_07	76
1	Shield		

MDM - P2			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	LN_BIAS_07	LN_BIAS_RET_07	100
25	LN_BIAS_06	LN_BIAS_RET_06	75
50	LN_BIAS_05	LN_BIAS_RET_05	99
24	S1_FB_07	S1_FB_RET_07	74
49	S2_FB_07	S2_FB_RET_07	98
23	SSA_SIG_07	SSA_SIG_RET_07	73
48	SSA_FB_07	SSA_FB_RET_07	97
22	S2_BIAS_07	S2_BIAS_RET_07	72
47	S1_FB_06	S1_FB_RET_06	96
21	S2_FB_06	S2_FB_RET_06	71
46	SSA_SIG_06	SSA_SIG_RET_06	95
20	SSA_FB_06	SSA_FB_RET_06	70
45	S2_BIAS_06	S2_BIAS_RET_06	94
19	S1_FB_05	S1_FB_RET_05	69
44	S2_FB_05	S2_FB_RET_05	93
18	SSA_SIG_05	SSA_SIG_RET_05	68
43	SSA_FB_05	SSA_FB_RET_05	92
17	S2_BIAS_05	S2_BIAS_RET_05	67
42	S1_FB_04	S1_FB_RET_04	91
16	S2_FB_04	S2_FB_RET_04	66
41	SSA_SIG_04	SSA_SIG_RET_04	90
15	SSA_FB_04	SSA_FB_RET_04	65
40	S2_BIAS_04	S2_BIAS_RET_04	89
14	S1_FB_03	S1_FB_RET_03	64
39	S2_FB_03	S2_FB_RET_03	88
13	SSA_SIG_03	SSA_SIG_RET_03	63
38	SSA_FB_03	SSA_FB_RET_03	87
12	S2_BIAS_03	S2_BIAS_RET_03	62
37	S1_FB_02	S1_FB_RET_02	86
11	S2_FB_02	S2_FB_RET_02	61
36	SSA_SIG_02	SSA_SIG_RET_02	85
10	SSA_FB_02	SSA_FB_RET_02	60
35	S2_BIAS_02	S2_BIAS_RET_02	84
9	S1_FB_01	S1_FB_RET_01	59
34	S2_FB_01	S2_FB_RET_01	83
8	SSA_SIG_01	SSA_SIG_RET_01	58
33	SSA_FB_01	SSA_FB_RET_01	82
7	S2_BIAS_01	S2_BIAS_RET_01	57
32	S1_FB_00	S1_FB_RET_00	81
6	S2_FB_00	S2_FB_RET_00	56
31	SSA_SIG_00	SSA_SIG_RET_00	80
5	SSA_FB_00	SSA_FB_RET_00	55
30	S2_BIAS_00	S2_BIAS_RET_00	79
4	LN_BIAS_08	LN_BIAS_RET_08	54
29	LN_BIAS_00	LN_BIAS_RET_00	78
3	LN_BIAS_04	LN_BIAS_RET_04	53
28	LN_BIAS_03	LN_BIAS_RET_03	77
2	LN_BIAS_02	LN_BIAS_RET_02	52
27	LN_BIAS_01	LN_BIAS_RET_01	76
1	Shield		

MDM - P3			
Pin	Sig Hi	Sig Lo	Pin
26	Shield		
51	LN_BIAS_15	LN_BIAS_RET_15	100
25	LN_BIAS_14	LN_BIAS_RET_14	75
50	LN_BIAS_13	LN_BIAS_RET_13	99
24	S1_FB_15	S1_FB_RET_15	74
49	S2_FB_15	S2_FB_RET_15	98
23	SSA_SIG_15	SSA_SIG_RET_15	73
48	SSA_FB_15	SSA_FB_RET_15	97
22	S2_BIAS_15	S2_BIAS_RET_15	72
47	S1_FB_14	S1_FB_RET_14	96
21	S2_FB_14	S2_FB_RET_14	71
46	SSA_SIG_14	SSA_SIG_RET_14	95
20	SSA_FB_14	SSA_FB_RET_14	70
45	S2_BIAS_14	S2_BIAS_RET_14	94
19	S1_FB_13	S1_FB_RET_13	69
44	S2_FB_13	S2_FB_RET_13	93
18	SSA_SIG_13	SSA_SIG_RET_13	68
43	SSA_FB_13	SSA_FB_RET_13	92
17	S2_BIAS_13	S2_BIAS_RET_13	67
42	S1_FB_12	S1_FB_RET_12	91
16	S2_FB_12	S2_FB_RET_12	66
41	SSA_SIG_12	SSA_SIG_RET_12	90
15	SSA_FB_12	SSA_FB_RET_12	65
40	S2_BIAS_12	S2_BIAS_RET_12	89
14	S1_FB_11	S1_FB_RET_11	64
39	S2_FB_11	S2_FB_RET_11	88
13	SSA_SIG_11	SSA_SIG_RET_11	63
38	SSA_FB_11	SSA_FB_RET_11	87
12	S2_BIAS_11	S2_BIAS_RET_11	62
37	S1_FB_10	S1_FB_RET_10	86
11	S2_FB_10	S2_FB_RET_10	61
36	SSA_SIG_10	SSA_SIG_RET_10	85
10	SSA_FB_10	SSA_FB_RET_10	60
35	S2_BIAS_10	S2_BIAS_RET_10	84
9	S1_FB_09	S1_FB_RET_09	59
34	S2_FB_09	S2_FB_RET_09	83
8	SSA_SIG_09	SSA_SIG_RET_09	58
33	SSA_FB_09	SSA_FB_RET_09	82
7	S2_BIAS_09	S2_BIAS_RET_09	57
32	S1_FB_08	S1_FB_RET_08	81
6	S2_FB_08	S2_FB_RET_08	56
31	SSA_SIG_08	SSA_SIG_RET_08	80
5	SSA_FB_08	SSA_FB_RET_08	55
30	S2_BIAS_08	S2_BIAS_RET_08	79
4	DET_BIAS_ORG	DET_BIAS_ORG_RET	54
29	PXL_HTR	PXL_HTR_RET	78
3	LN_BIAS_12	LN_BIAS_RET_12	53
28	LN_BIAS_11	LN_BIAS_RET_11	77
2	LN_BIAS_10	LN_BIAS_RET_10	52
27	LN_BIAS_09	LN_BIAS_RET_09	76
1	Shield		