

No-Wire Interface Tests

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This chapter describes No-Wire Interface Tests for Mux systems.

Overview

No-Wire Interface diagnostic tests are available in system software revision 05.20 or later.

The No-Wire Interface tests are numbered in the range 11100 to 11199. These tests check:

- Pin Card Interface pins and probes (tests 11101–11102)
- Module Control Card Interface pins and probes (tests 11103–11106) and
- ASRU Card Interface pins and probes (tests 11107–11116).

For these tests to isolate No-Wire Interface problems, you must first run full diagnostics without the No-Wire Interface and with the standard Pin Verification Fixture (PVF). Then, install the Interface and Interface Pin Verification Fixture and run the Interface tests.

Note that there is no coverage for the following pins:

- Module Control Card Interface pins 4, 14, 17, 24–37, 42, 45, 47, 64 and 65.
There are no wires in the Interface pin verification fixture connected to these pins. These are all unswitched grounds
- ASRU Card Interface pins 29–30 (NC) 31–32 (Calib1/2_), 41–42 (NC), 51–52 (SW BND) 59,63 (NC), 66–67 (SW BNG) 68–69 (BNC), 70 (GND unswitched).
There are no wires in the interface pin verification fixture connected to these pins.

In addition, the following ASRU Card pin pairs are connected together. If either path makes contact the test for this path will pass.

- 25/27
- 26/28
- 33/34
- 35/36
- 37/38
- 39/40
- 49/50
- 64/65

Interface Pin Verification Fixture

All No-Wire Interface tests require a No-Wire Pin Verification Fixture.

Repair Strategy

If defects are found on the No-Wire Interface, replace the defective pin or probe.

Tests 11101 to 11116

- Test 11101
- Test 11102
- Test 11103
- Test 11104
- Test 11105
- Test 11106
- Test 11107
- Test 11108
- Test 11109
- Test 11110
- Test 11111
- Test 11112
- Test 11113
- Test 11114
- Test 11115
- Test 11116

Test 11101

No-Wire Interface Pin Card Pins 19, 20, 39, 40, 59, 60

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 3976

This test is based on test 3976. See test 3976 for more information.

Table 14-1

Subtest	Pin<1>	Pin<2>	Pin<3>
Side A			
0a	1a	2a	19a
1a	3a	4a	20a
2a	5a	6a	39a
3a	7a	8a	40a
4a	9a	10a	59a
5a	11a	12a	60a
Side B			
0b	1b	2b	19b
1b	3b	4b	20b
2b	5b	6b	39b
3b	7b	8b	40b
4b	9b	10b	59b
5b	11b	12b	60b

Test 11102

No-Wire Interface Pin Card Pins Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 3991

This test is used to test all pin card interface pins not tested by test 11101.

Table 14-2

Subtest	Pin	Pin	Subtest	Pin	Pin
Side A			Side A		
0a	1a	2a	18a	41a	42a
1a	3a	4a	19a	43a	44a
2a	5a	6a	20a	45a	46a
3a	7a	8a	21a	47a	48a
4a	9a	10a	22a	49a	50a
5a	11a	12a	23a	51a	52a
6a	13a	14a	24a	53a	54a
7a	15a	16a	25a	55a	56a
8a	17a	18a	26a	57a	58a
9a	21a	22a	27a	61a	62a
10a	23a	24a	28a	63a	64a
11a	25a	26a	29a	65a	66a
12a	27a	28a	30a	67a	68a
13a	29a	30a	31a	69a	70a
14a	31a	32a	32a	71a	72a
15a	33a	34a	33a	73a	74a
16a	35a	36a	34a	75a	76a
17a	37a	38a	35a	77a	78a

Table 14-2

Subtest	Pin	Pin	Subtest	Pin	Pin
Side B			Side B		
0b	1b	2b	18b	41b	42b
1b	3b	4b	19b	43b	44b
2b	5b	6b	20b	45b	46b
3b	7b	8b	21b	47b	48b
4b	9b	10b	22b	49b	50b
5b	11b	12b	23b	51b	52b
6b	13b	14b	24b	53b	54b
7b	15b	16b	25b	55b	56b
8b	17b	18b	26b	57b	58b
9b	21b	22b	27b	61b	62b
10b	23b	24b	28b	63b	64b
11b	25b	26b	29b	65b	66b
12b	27b	28b	30b	67b	68b
13b	29b	30b	31b	69b	70b
14b	31b	32b	32b	71b	72b
15b	33b	34b	33b	73b	74b
16b	35b	36b	34b	75b	76b
17b	37b	38b	35b	77b	78b

Test 11103

No-Wire Interface Module Control Card Pins Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 1400

This test is based on test 1400. It checks the Interface pins for the Module Control Card GP relay, autofile, fixture enable 1, and safety enable. See [Test 1400](#) for more information.

Table 14-3

Pin Tested	Autofile 0	Autofile 1	Autofile 2	Autofile 3
Pin Number	66	67	68	69
Grounded By	General-Purpose 1	General-Purpose 2	General-Purpose 3	General-Purpose 4
Pin Numbers	48, 49 and 18	50, 51, and 20	52, 53, and 22	54, 55, and 39
Pin Tested	Autofile 4	Autofile 5	Autofile 6	Autofile 7
Pin Number	70	71	72	73
Grounded By	General-Purpose 5	General-Purpose 6	General-Purpose 7	General-Purpose 8
Pin Numbers	56, 57 and 41	58, 59, and 44	60, 61, and 46	62, 63, and 78
Pin Tested	Autofile 8	Autofile 9	Autofile 10	Autofile 11
Pin Number	74	75	76	77
Grounded By	Clk Rcvr Sw Gnd	Event Trg1 Sw Gnd	Event Trg2 Sw Gnd	Event Trg3 Sw Gnd
Pin Number	1	5	8	11
Pin Tested	FX_EN1/	SAF_DIS		
Pin Number	40	43		
Grounded By	General-Purpose 2	User Clock Gnd		
Pin Number	50, 51 and 20	15		

Test 11104

No-Wire Interface Module Control Card UCLK Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 1092

This test is based on test 1092. It tests the Module Control Card pins for the UCLK, pins 2 and 16. See test 1092 for more information.

Test 11105

No-Wire Interface Module Control Card Event Trigger Pin Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 1311

This test is based on test 1311. It tests the pins attached to the Module Control Card event trigger inputs. See test 1311 for more information.

Table 14-4

Subtest	Pin	Pin
0	6	21
1	7	23
2	9	21
3	10	23
4	12	21
5	13	23

Test 11106

No-Wire Interface Module Control Card Debug Signal Pins Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 1370

This test is based on test 1370. It tests interface pins 3 and 19 of the Module Control Card. See test 1370 for more information.

Test 11107

No-Wire Interface ASRU Card Pins 49/50, 78

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2312

This test is based on test 2312. It tests ASRU Card Interface pins 49/50, 78. See test 2312 for more information.

Test 11108

No-Wire Interface ASRU Card Pins 26/28, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2313

This test is based on test 2313. It tests ASRU Card Interface pins 26/28, 77. See test 2313 for more information.

Test 11109

No-Wire Interface ASRU Card Pins 25/27, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2314

This test is based on test 2314. It tests ASRU Card Interface pins 25/27, 77. See test 2314 for more information.

Test 11110

No-Wire Interface ASRU Card Pins 64/65, 78

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2315

This test is based on test 2315. It tests ASRU Card Interface pins 64/65, 78. See test 2315 for more information.

Test 11111

No-Wire Interface ASRU Card Pins 33/34, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2316

This test is based on test 2316. It tests ASRU Card Interface pins 33/34, 77. See test 2316 for more information.

Test 11112

No-Wire Interface ASRU Card Pins 35/36, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2317

This test is based on test 2317. It tests ASRU Card Interface pins 35/36, 77. See test 2317 for more information.

Test 11113

No-Wire Interface ASRU Card Pins 37/38, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2318

This test is based on test 2318. It tests ASRU Card Interface pins 37/38, 77. See test 2318 for more information.

Test 11114

No-Wire Interface ASRU Card Pins 39/40, 77

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2319

This test is based on test 2319. It tests ASRU Card Interface pins 39/40, 77. See test 2319 for more information.

Test 11115

No-Wire Interface ASRU Card Power Supply 1–4 Pins Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2340

This test is based on test 2340. It tests ASRU Card Power Supply 1–4 Interface pins. See test 2340 for more information.

Table 14-5

Subtest	Power Supply Pins	Mux Pins
0	1–6	71–76
1	1–6	71–76
2	7–12	71–76
3	7–12	71–76
4	13–18	71–76
5	13–18	71–76
6	19–24	71–76
7	19–24	71–76

Test 11116

No-Wire Interface ASRU Card Power Supply 5–6 Pins Test

Requires:

- No-wire Pin Verification Fixture
- Passing tests: 2343

This test is based on test 2343. It tests ASRU Card Power Supply 5–6 Interface pins. See test 2343 for more information.

Table 14-6

Subtest	Power Supply Pins	Mux Pins
0	43–48	71–76
1	53–58	71–76

