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SKIT1™

S-parameter demonstration kit
Revision 2.0

Contents

Qty	Description
1	SKIT1 circuit board assembly
1	CAT5 data cable, 3 ft., unshielded
4	SMA 50 Ω terminations, plug



ESD WARNING

Electrically discharge all SKIT devices before connecting to instrumentation.
Create ESD-safe work area when measuring SKIT devices with sensitive instruments.

Description

The SKIT1 is four-layer circuit board with a number of devices suitable for demonstrating and learning basic network analyzer and TDR/T measurements. The kit includes a CAT5 data cable with differential twisted-pair signal lines, and four 50 Ω SMA terminations.

The board was designed with Eric Bogatin to support the hands-on workshop offered by Bogatin Enterprises:

HOW-SPM *Hands on Workshop on S-Parameter Measurements*

Each student in this workshop receives a SKIT1 to use during the course and to take with them for further exploration in their lab.

In addition, CCN sells the SKIT from our website to students interested in learning S-parameter measurements on their own, and to students interested in exploring the SKIT1 prior to attending Eric's workshop.

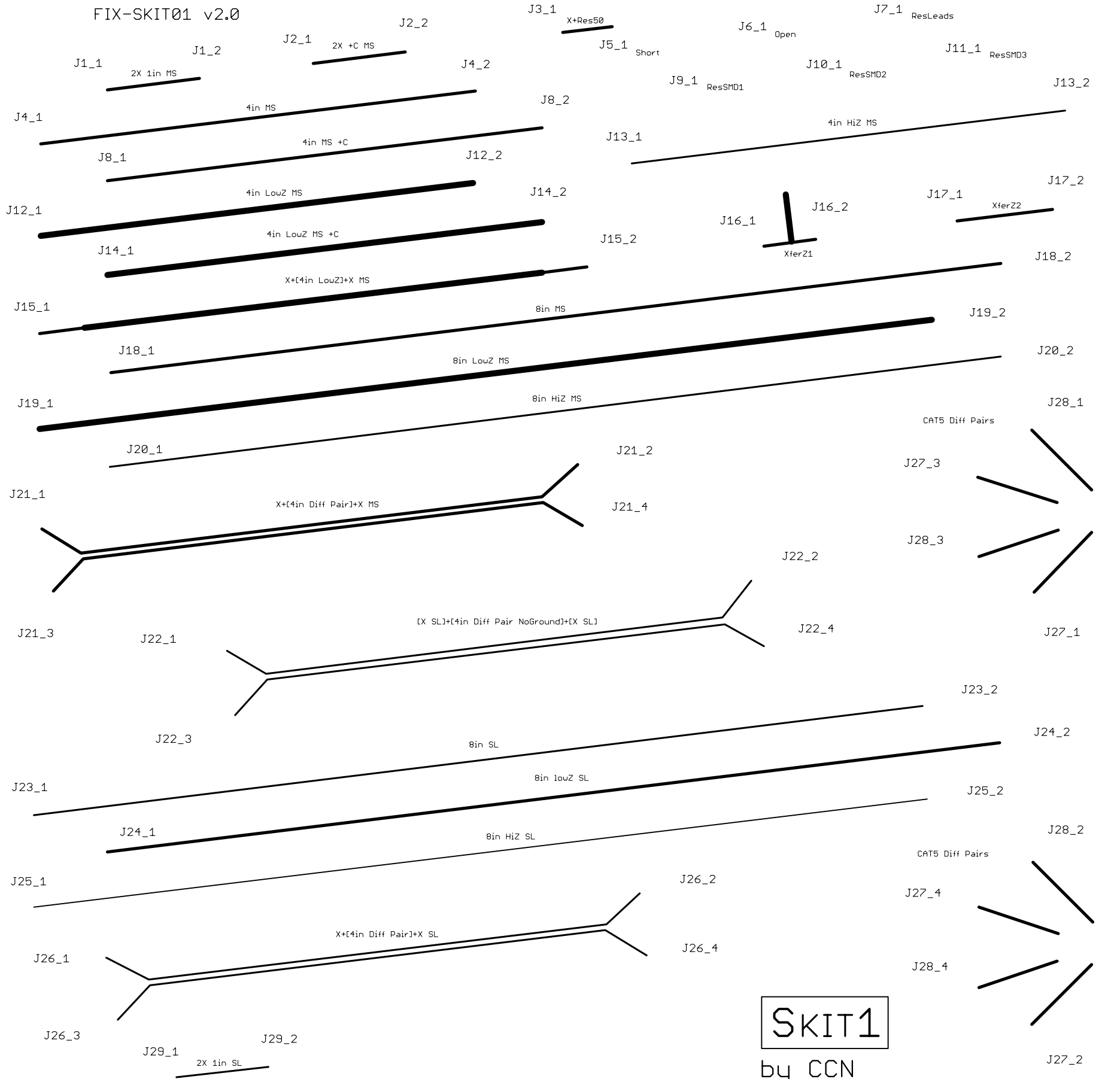
As an additional service, CCN will characterize each device on your SKIT1 and provide NIST-traceable S-parameter data for measurement verification purposes.

For further information on Bogatin Enterprises classes, visit www.beTheSignal.com

For further information on CCN services and products, visit www.ccnlabs.com

SKIT1 v2.0 Device List & Port Connections

DUT	Port1	Port2	Port3	Port4	Description
1	J1_1	J1_2			2X THRU, 1.0 in. 50 Ω microstrip
2	J2_1	J2_2			2X THRU with capacitive launches, microstrip
3	J3_1				1X THRU, 0.5 in. 50 Ω microstrip + 50 Ω resistor
4	J4_1	J4_2			4.0 in. 50 Ω microstrip
5	J5_1				SHORT
6	J6_1				OPEN
7	J7_1				50 Ω resistor, axial lead
8	J8_1	J8_2			4.0 in. 50 Ω microstrip with capacitive launches
9	J9_1				50 Ω resistor, SMT
10	J10_1				100 Ω resistor, SMT
11	J11_1				10 Ω resistor, SMT 4.0 in. 33 Ω microstrip
12	J12_1	J12_2			4.0 in. 33 Ω microstrip
13	J13_1	J13_2			4.0 in. 65 Ω microstrip
14	J14_1	J14_2			4.0 in. 33 Ω microstrip with capacitive launches
15	J15_1	J15_2			[0.5 in. 50 Ω] + [4.0 in. 33 Ω] + [0.5 in. 50 Ω] microstrip
16	J16_1	J16_2			0.3 in. + [0.056 in. x 0.41 in. SHORT] + 0.3 in. microstrip
17	J17_1	J17_2			0.25 in + SHORT + 0.25 in microstrip
18	J18_1	J18_2			8.0 in. 50 Ω microstrip
19	J19_1	J19_2			8.0 in. 33 Ω microstrip
20	J20_1	J22_2			8.0 in. 65 Ω microstrip
21	J21_1	J21_2	J21_3	J21_4	1X + [4.0 in. 100 Ω differential] + 1X microstrip
22	J22_1	J22_2	J22_3	J22_4	1X SL + [4.0 in. 100 Ω diff. discontinuous gnd] + 1X SL
23	J23_1	J23_2			8.0 in. 50 Ω stripline
24	J24_1	J24_2			8.0 in. 33 Ω stripline
25	J25_1	J25_2			8.0 in. 65 Ω stripline
26	J26_1	J26_2	J26_3	J26_4	1X + [4.0 in. 100 Ω differential] + 1X stripline
27	J27_1	J27_2	J27_3	J27_4	CAT5 differential twisted pair w/2X microstrip + RJ-45
28	J28_1	J28_2	J28_3	J28_4	CAT5 differential twisted pair w/2X microstrip + RJ-45
29	J29_1	J29_2			2X THRU, 1.0 in. 50 Ω stripline



SKIT1

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