

## PRODUCT CHANGE NOTICE

### PCN Form (D4-E000-73)

**PCN#24-037**

**NOTIFICATION DATE: December 04, 2024**

**MODEL(S) AFFECTED:**

**USB-1SP2T-A44**

**EXTENT OF CHANGE:**

Replacement of internal switch component

**EFFECT OF CHANGE:**

- No change in FIT (Dimensions) or FORM (Appearance)
- Change in FUNCTION (Performance) as outlined below:
- No change in internal or external layout.

Parameters	Conditions (GHz)	Orig Version	New Version
Insertion Loss	18 – 26	2.7 dB Typ, 4.0 dB Max	2.0 dB Typ, 3.5 dB Max
	26 – 35	3.3 dB Typ, 4.5 dB Max	2.5 dB Typ, 4.0 dB Max
	35 – 40	4.0 dB Typ, 5.5 dB Max	3.0 dB Typ, 5.0 dB Max
	40 – 43.5	5.5 dB Typ, 7.0 dB Max	4.0 dB Typ, 6.0 dB Max
Isolation (COM to terminated ports, including disconnected)	40 – 43.5	48 dB Typ, 40 dB Min	48 dB Typ, 37 dB Min
Return Loss (COM port, active states)	18 – 26	14 dB Typ, 9.5 dB Min	16 dB Typ, 11 dB Min
	26 – 35	11.5 dB Typ, 8.1 dB Min	16 dB Typ, 10 dB Min
	35 – 40	11 dB Typ, 7.7 dB Min	16 dB Typ, 10 dB Min
	40 – 43.5	9.5 dB Typ, 5.1 dB Min	11 dB Typ, 6.5 dB Min
Return Loss (Any port connected to COM)	18 – 26	14 dB Typ, 9.5 dB Min	16 dB Typ, 12 dB Min
	26 – 35	11.5 dB Typ, 7.4 dB Min	17 dB Typ, 12 dB Min
	35 – 40	11 dB Typ, 7.4 dB Min	16 dB Typ, 10 dB Min
	40 – 43.5	8.5 dB Typ, 5.1 dB Min	11 dB Typ, 6.5 dB Min
Return Loss (Any terminated port)	0.1 – 18	21 dB Typ, 14 dB Min	21 dB Typ, 15 dB Min
	18 – 26	17.5 dB Typ, 11.5 dB Min	20 dB Typ, 15 dB Min
	26 – 35	14 dB Typ, 10 dB Min	17 dB Typ, 12 dB Min
	35 – 40	10 dB Typ, 7.4 dB Min	17 dB Typ, 11 dB Min
	40 – 43.5	10 dB Typ, 7.4 dB Min	13 dB Typ, 8.5 dB Min
Transition Time	–	10 nSec Typ	600 nSec Typ
Min Dwell Time	–	15 μSec Typ	20 μSec Typ

## PRODUCT CHANGE NOTICE

### PCN Form (D4-E000-73)

**REASON FOR CHANGE:**

Improvement of RF performance as outlined in the table above and improvement of production yield. Please contact our Applications team at [apps@minicircuits.com](mailto:apps@minicircuits.com) with any questions or concerns.

**EFFECTIVE DATE OF CHANGE:**

Immediate. Last Date Code before transition is 2146

QUESTIONS?

[PLEASE CONTACT US.](#)

## PRODUCT CHANGE NOTICE

PCN Form (D4-E000-73)

\*\*\* **INTERNAL USE ONLY** \*\*\*

Date	Reviewers:	Comments/Actions:
April 14, 2024	Ilan R.  Efron F.	1. Change in spec/performance due to redesign: <ol style="list-style-type: none"> <li>a. See summary table above + attached performance comparison graphs.</li> <li>b. Isolation (COM to terminated/ disconnected ports) @ 40-43.5 GHz – originally listed as 40 dB Min on the catalog page by mistake.</li> <li>c. Return Loss (at terminated ports) @ 40-43.5 GHz –spec was not listed originally.</li> </ol>

<p><b>PCN Disposition:</b></p> <p> <input type="checkbox"/> Approve              <input type="checkbox"/> Reject              <input type="checkbox"/> Other         </p> <p>If other explain: _____</p> <p>_____</p> <p>_____</p> <p>Sign by: _____</p>	<p><b>Notification:</b></p> <p> <input type="checkbox"/> WEB post              <input type="checkbox"/> Customer Notice         </p> <p>If customer notice, provide list of customers: _____</p> <p>_____</p> <p>_____</p>
--	--