

## PRODUCT CHANGE NOTICE

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

**EOL/PCN#23-030**

**NOTIFICATION DATE: November 10, 2023**

#### **MODELS AFFECTED:**

<b>Mini-Circuits PN:</b>	<b>Suggested Replacement Model:</b>	<b>Replacement Guide:</b>
NCS3-272+	NCS2-33+	Please see pages 2 through 5

#### **EXTENT OF CHANGE:**

<b>Parameter</b>	<b>Original Part (NCS3-272+)</b>	<b>Suggested Replacement Model (NCS2-33+)</b>
Impedance Ratio (Secondary/Primary)	3	2
Frequency Range	2250 – 2725 MHz	1500 – 3100 MHz
Average Insertion Loss	1dB max	1dB max
Amplitude Unbalance	0.4dB typ.	0.6dB typ.
Phase Unbalance	3 degrees typ.	5 degrees typ.
Operating Temperature	-40C to +85C	-40C to +85C
Storage Temperature	-50C to 100C	-50C to 100C
RF Power	3W max	3W max

#### **EFFECT OF CHANGE:**

Change to FORM (Appearance), minor change to FIT (height dimension) not affecting device footprint and FUNCTION (Performance) specification changed to reflect performance

#### **REASON FOR CHANGE:**

Change to reflect production performance.

#### **EFFECTIVE DATE OF CHANGE:**

Immediate

#### **ATTACHMENTS:**

Replacement Guide on pages 2 – 5.

**QUESTIONS?**

**[PLEASE CONTACT US.](#)**

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### APPLICATION NOTE

### REPLACEMENT PART REFERENCE GUIDE, NCS3-272+

ORIGINAL PART: NCS3-272+  
 REPLACEMENT PART: NCS2-33+



*Suggested replacement part has been judged by Mini-Circuits Applications as a close replacement to Original Part.*

#### MECHANICAL DIMENSIONS & PCB LAND PATTERN

ORIGINAL PART: NCS3-272+	SUGGESTED REPLACEMENT PART: NCS2-33+																																																
<p>GE0805C-9</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>CASE #</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>J</th> <th>K</th> <th>WT.GRAM</th> </tr> </thead> <tbody> <tr> <td>GE0805C-9</td> <td>.079 (2.00)</td> <td>.049 (1.25)</td> <td>.037 (0.95)</td> <td>.014 (0.35)</td> <td>.012 (0.30)</td> <td>.012 (0.30)</td> <td>.026 (0.65)</td> <td>.014 (0.35)</td> <td>.039 (1.00)</td> <td>.110 (2.80)</td> <td>.008</td> </tr> </tbody> </table> <p><small>Dimensions are in inches (mm). Tolerances: 2PL ±.01; 3 PL ±.005</small></p>	CASE #	A	B	C	D	E	F	G	H	J	K	WT.GRAM	GE0805C-9	.079 (2.00)	.049 (1.25)	.037 (0.95)	.014 (0.35)	.012 (0.30)	.012 (0.30)	.026 (0.65)	.014 (0.35)	.039 (1.00)	.110 (2.80)	.008	<p>GE0805C-1</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>CASE #</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>J</th> <th>K</th> <th>WT.GRAM</th> </tr> </thead> <tbody> <tr> <td>GE0805C-1</td> <td>.079 (2.00)</td> <td>.049 (1.25)</td> <td>.033 (0.84)</td> <td>.014 (0.35)</td> <td>.012 (0.30)</td> <td>.012 (0.30)</td> <td>.026 (0.65)</td> <td>.014 (0.35)</td> <td>.039 (1.00)</td> <td>.110 (2.80)</td> <td>.008</td> </tr> </tbody> </table> <p><small>Dimensions are in inches (mm). Tolerances: 2PL ±.01; 3 PL ±.005</small></p>	CASE #	A	B	C	D	E	F	G	H	J	K	WT.GRAM	GE0805C-1	.079 (2.00)	.049 (1.25)	.033 (0.84)	.014 (0.35)	.012 (0.30)	.012 (0.30)	.026 (0.65)	.014 (0.35)	.039 (1.00)	.110 (2.80)	.008
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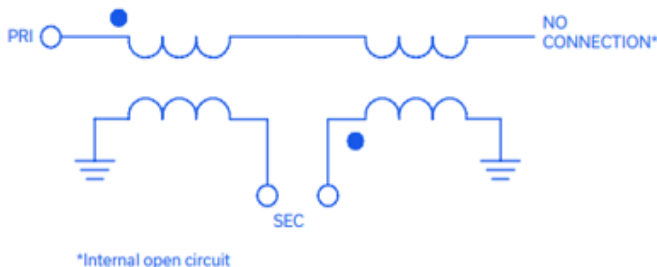
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ORIGINAL PART: NCS3-272+	SUGGESTED REPLACEMENT PART: NCS2-33+
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### Application Circuit

#### CONFIGURATION J



### Pin Connections

Function	Pin
PRIMARY DOT (Unbalanced Port)	1
PRIMARY (GND)	2
SECONDARY DOT (Balanced)	4
SECONDARY (Balanced)	3
NO CONNECTION	6
NOT USED (GND Externally)	5

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### APPLICATION NOTE

#### CONCLUSIONS:

1) FORM-FIT-FUNCTION COMPATIBLE:

The suggested replacement part is Form and Fit compatible.  
Following is a summary of electrical changes/improvements:

Typical performance: See Paragraphs 2 and 3

Min/Max Specifications seen below,

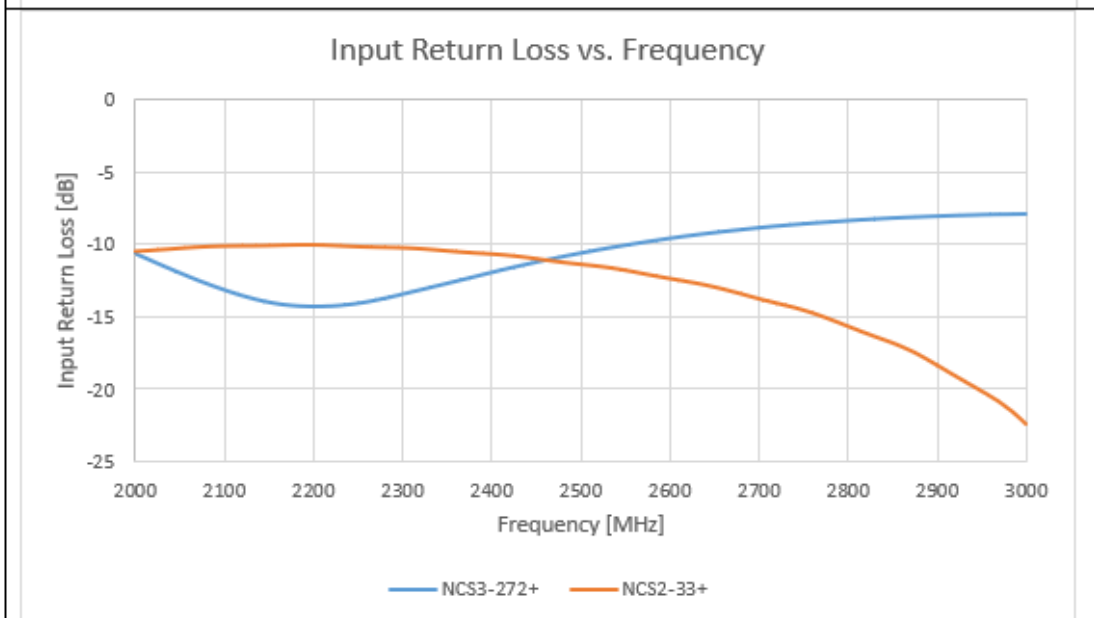
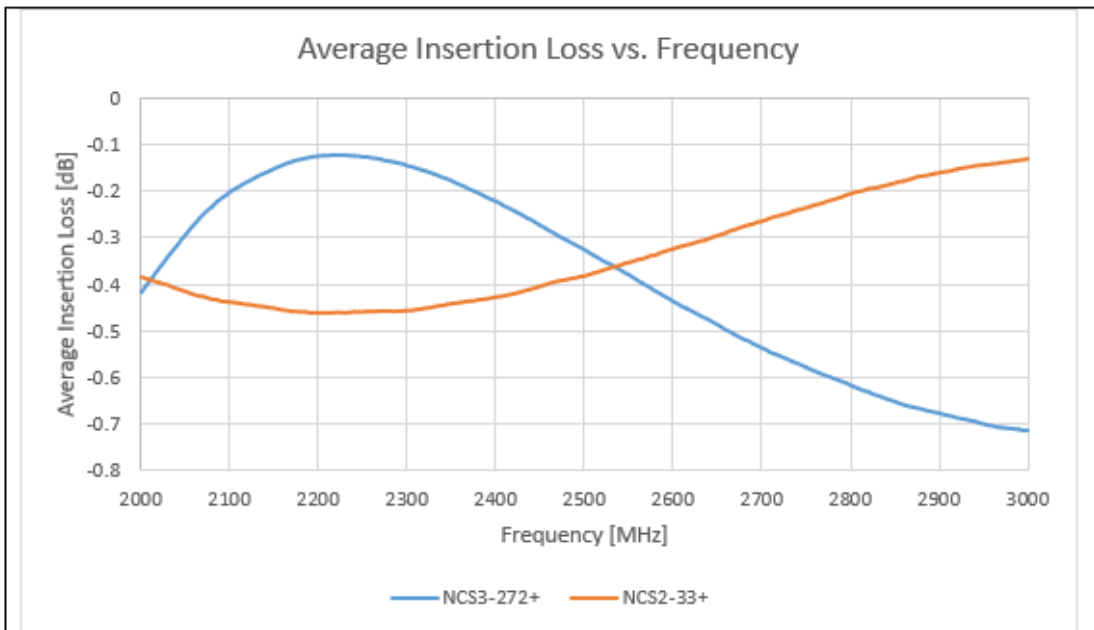
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#### 2) PERFORMANCE COMPARISON CURVES ON ORIGINAL VS. SUGGESTED REPLACEMENT

— Original  
— Suggested Replacement



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