
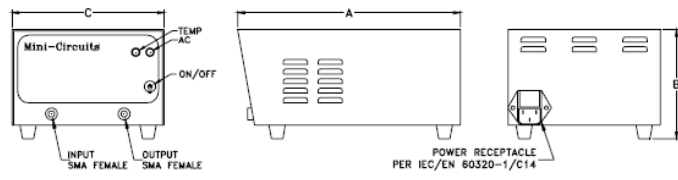

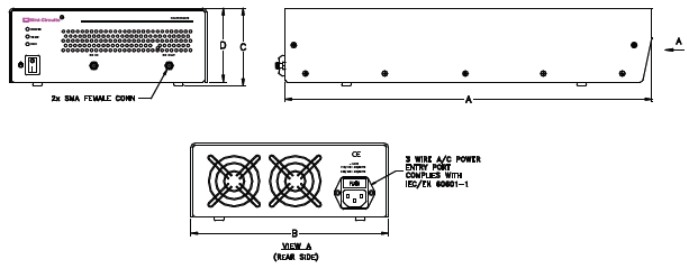


TVA-82-213A+ PCN Report

AN-60-081

As a result of the introduction of RoHS compliant version and assembly option at an alternate qualified Mini-Circuits facility, the replacement part has been judged by the Mini-Circuits Engineering team as a suitable replacement for the existing TVA-82-213_a.

CASE STYLE

ORIGINAL PART: TVA-82-213	REPLACEMENT PART: TVA-82-213A+																														
<p>CASE STYLE: AP1602</p>  <p>Outline Drawing</p>  <p>Outline Dimensions (inch / mm)</p> <table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>wt</th> </tr> </thead> <tbody> <tr> <td>9.8</td> <td>4.8</td> <td>6.7</td> <td>—</td> <td>grams</td> </tr> <tr> <td>248.9</td> <td>121.9</td> <td>170.2</td> <td>—</td> <td>1700</td> </tr> </tbody> </table>	A	B	C	D	wt	9.8	4.8	6.7	—	grams	248.9	121.9	170.2	—	1700	<p>CASE STYLE: PJ2059</p>  <p>Outline Drawing</p>  <p>Outline Dimensions (inch / mm)</p> <table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>WT.</th> </tr> </thead> <tbody> <tr> <td>15.35</td> <td>8.27</td> <td>3.25</td> <td>3.09</td> <td>GRAM</td> </tr> <tr> <td>389.89</td> <td>210.06</td> <td>82.55</td> <td>78.49</td> <td>2490</td> </tr> </tbody> </table>	A	B	C	D	WT.	15.35	8.27	3.25	3.09	GRAM	389.89	210.06	82.55	78.49	2490
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- a. Suitability within a particular system must be determined by and is solely the responsibility of the customer based on, among other things, electrical performance criteria, stimulus conditions, application, compatibility with other components and environmental conditions and stresses.

CONCLUSION:

- 1) FIT and FORM change for RoHS version
- 2) FUNCTIONAL changes as follows:

Parameter	Original Part, TVA-82-213	Replacement Part, TVA-82-213A+
Gain	20dB min, 25dB typ	18dB min, 25dB typ
Gain Flatness	+/-2dB typ	+/-3dB typ
OIP3	33dBm typ	30dBm typ

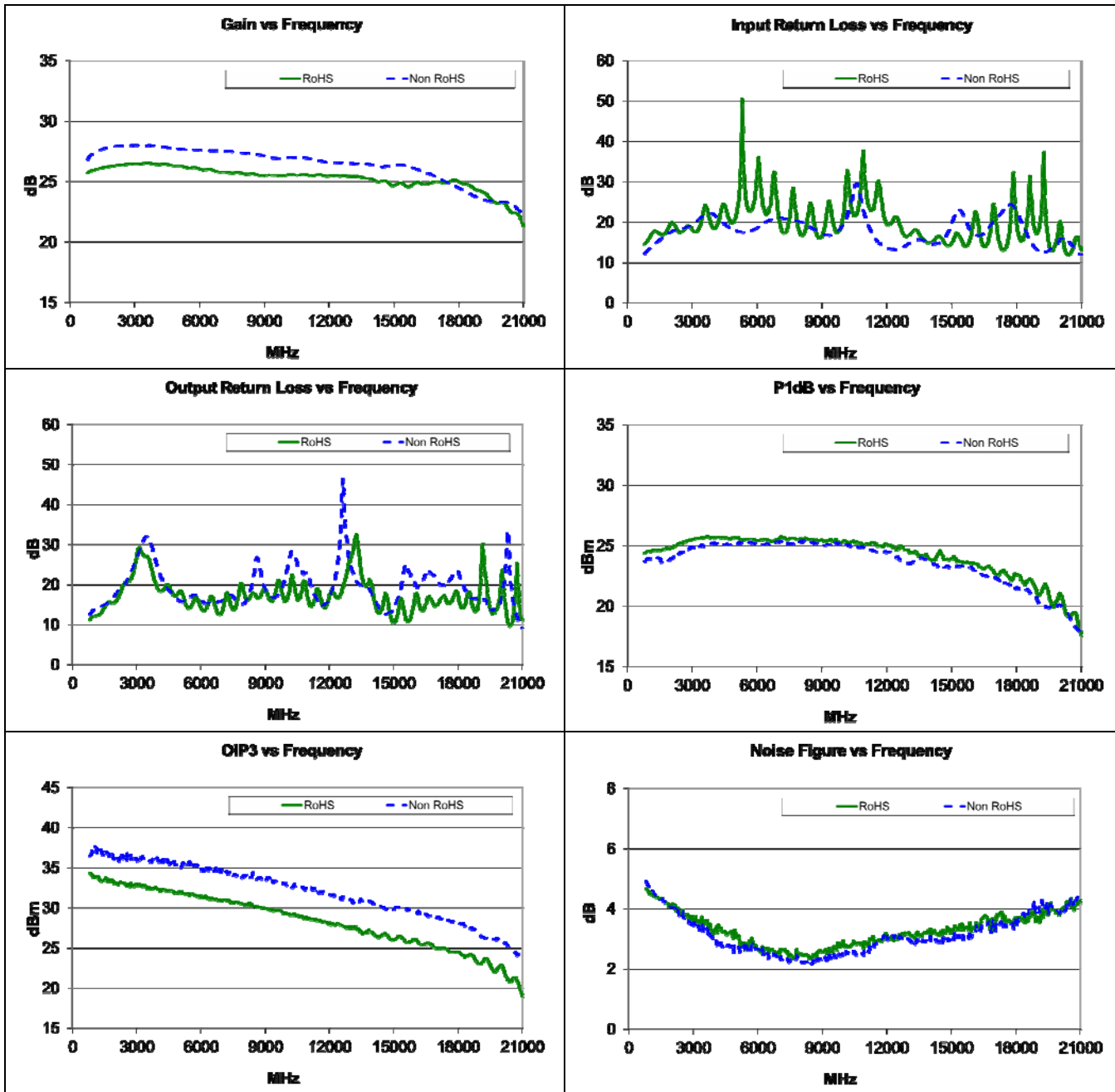
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3) TYPICAL PERFORMANCE COMPARISON_a: T_{AMB}=25°C

Parameter	Freq (MHz)	Non RoHS (TVA-82-213)		RoHS (TVA-82-213A+)	
		Data of 1 unit		Data of 2 units	
		Min	Max	Min	Max
Gain (dB)	800-21000	22.13	28	19.91	26.88
Gain Flatness (dB)	800-21000	-----	+/-2.93	-----	+/-3.49
Input VSWR (:1)	800-21000	-----	1.68	-----	1.82
Output VSWR (:1)	800-21000	-----	2.07	-----	2.07
P1dB (dBm)	800-21000	17.94	-----	15.50	-----
OIP3 (dBm)	800-21000	23.75	-----	17.73	-----
Noise Figure (dB)	800-21000	-----	4.93	-----	4.85
AC Supply (V)	-----	-----	110/220	-----	110/220

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COMPARISON PERFORMANCE CURVES^a: $T_{AMB}=25^{\circ}C$



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