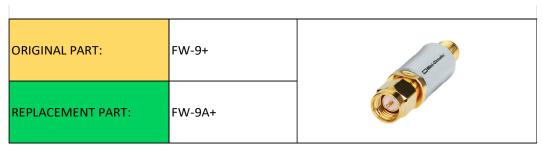


REPLACEMENT PART REFERENCE GUIDE, FW-9+

AN-70-114



Replacement Part has been judged by Mini-Circuits Engineering as a suitable replacement to Original Parta

MECHANICAL DIMENSIONS

Case Style: FF704

Replacement part uses same case style as original part.

CONCLUSION:

1) FORM-FIT-FUNCTIONAL ANALYSISa:

The Replacement Part is Form, Fit compatible.

Following is a summary of changes/improvements in the Specification:

| Parameter | Frequency (MHz) | FW-9+ | FW-9A+ | |
|-----------------------|--------------------|-------|--------|--|
| Attenuation (dB)(Typ) | 10 | 9 | 9 | |
| Attenuation (dB)(Typ) | DC-3000 | 9.15 | 9.1 | |
| Attenuation (dB)(Typ) | 3000-8000 | 9.45 | 9.4 | |
| Attenuation (dB)(Typ) | 8000-12000 | 9.85 | 9.6 | |
| VSWR(:1) (Typ) | DC-3000 | 1.05 | 1.10 | |
| VSWR(:1) (Typ) | 3000-8000 | 1.15 | 1.15 | |
| VSWR(:1) (Typ) | 8000-12000 | 1.35 | 1.20 | |
| Input Power | DC-12000 | 1W | 1.1W * | |

^{*}RF power at 25°C is 1.1W; De-rate linearly to 0.8W at 85°C

For typical performance: See paragraph 2



2) <u>TYPICAL PERFORMANCE COMPARISON AT ROOM TEMPERATURE:</u>

MODEL: FW-9+, FW-9A+ (RF Parameters); Data of 7 samples

| Parameter | Frequency (MHz) | | FW-9+ | | | FW-9A+ | | |
|------------------|-----------------|-------|-------|-------|-------|--------|-------|-------|
| | Low | High | Min | Avg | Max. | Min | Avg | Max. |
| Attenuation(dB) | 10 | | 8.97 | 8.99 | 9.01 | 8.93 | 8.95 | 8.96 |
| | 10 | 3000 | 8.97 | 9.12 | 9.27 | 8.93 | 9.06 | 9.19 |
| | 3000 | 8000 | 9.2 | 9.43 | 9.66 | 9.15 | 9.34 | 9.52 |
| | 8000 | 12000 | 9.54 | 9.68 | 9.81 | 9.49 | 9.58 | 9.67 |
| Return Loss (dB) | 10 | 3000 | 25.48 | 31.10 | 38.76 | 21.74 | 22.75 | 24.20 |
| | 3000 | 8000 | 23.77 | 28.54 | 31.98 | 21.51 | 22.64 | 24.03 |
| | 8000 | 12000 | 23.12 | 30.68 | 37.70 | 24.24 | 27.32 | 31.75 |
| VSWR (:1) | 10 | 3000 | 1.02 | 1.06 | 1.11 | 1.13 | 1.16 | 1.18 |
| | 3000 | 8000 | 1.05 | 1.08 | 1.14 | 1.13 | 1.16 | 1.18 |
| | 8000 | 12000 | 1.03 | 1.06 | 1.15 | 1.05 | 1.09 | 1.13 |

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