

REPLACEMENT PART REFERENCE GUIDE, FW-20+

AN-70-118

ORIGINAL PART:	FW-20+	
REPLACEMENT PART:	FW-20A+	

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

MECHANICAL DIMENSIONS

Case Style: FF704

Replacement part uses same case style as original part.

CONCLUSION:

1) FORM-FIT-FUNCTIONAL ANALYSIS_a:

The Replacement Part is Form, Fit compatible.

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

Parameter	Frequency (MHz)	FW-20+	FW-20A+
Attenuation (dB)(Typ)	10	20	20
Attenuation (dB)(Typ)	DC-3000	20.2	20.2
Attenuation (dB)(Typ)	3000-8000	21	21
Attenuation (dB)(Typ)	8000-12000	21.85	21.6
VSWR(:1) (Typ)	DC-3000	1.05	1.15
VSWR(:1) (Typ)	3000-8000	1.20	1.15
VSWR(:1) (Typ)	8000-12000	1.35	1.20
Input Power	DC-12000	1W	0.8W *

*RF power at 25°C is 0.8W; De-rate linearly to 0.6W at 85°C

For typical performance: See paragraph 2

2) TYPICAL PERFORMANCE COMPARISON AT ROOM TEMPERATURE:

MODEL: FW-20+, FW-20A+ (RF Parameters); Data of 7 samples

Parameter	Frequency (MHz)		FW-20+			FW-20A+		
	Low	High	Min	Avg	Max.	Min	Avg	Max.
Attenuation(dB)	10		20.00	20.02	20.03	20.01	20.03	20.04
	10	3000	20.00	20.22	20.44	20.01	20.21	20.4
	3000	8000	20.37	20.95	21.53	20.36	20.86	21.35
	8000	12000	21.38	21.61	21.84	21.29	21.51	21.73
Return Loss (dB)	10	3000	25.65	31.02	35.99	20.35	21.65	23.37
	3000	8000	20.93	24.24	30.25	20.39	21.71	23.40
	8000	12000	18.54	21.93	27.24	21.51	26.49	31.43
VSWR (:1)	10	3000	1.03	1.06	1.11	1.15	1.18	1.21
	3000	8000	1.06	1.13	1.20	1.15	1.18	1.21
	8000	12000	1.09	1.17	1.27	1.06	1.10	1.18

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