MICROLAB/FXR

Bias/Monitor Tees

HU and HW series

High Power, Low Loss
100 – 8,000 MHz

- **50 Watts Average Power Rating**
- **Minimal RF Insertion Loss**
- **High Reliability**
- **Powering of Antenna Amplifiers**
- **N Standard**
- **BNC, TNC, or SMA available**
- **Custom miniaturized versions to special order**

Microlab/FXR Model HW series Bias or Monitor Tees consist of a coaxial line which blocks DC and video, shunted by an auxiliary line having a high impedance to RF and a low impedance to video or DC.

This allows the user to combine DC or video with an RF signal (Bias Tee), or to separate DC or video from an RF signal (Monitor Tee). Bias Tees are used to provide power and/or control signals to remote repeaters or antenna top amplifiers. Monitor Tees can be used to measure DC and video currents independently of RF, such as monitoring of helix interception currents in traveling wave tubes.

In applications where the DC blocking capacitance in the main RF path is not required, an otherwise identical HU series may be ordered. For powers up to 175W in the cellular wireless bands, see data sheet HW-10 series. Options for custom housings or alternate connectors are available on request. (1/07)

General Specifications

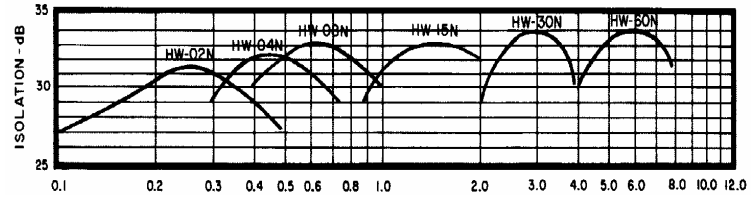
Frequency Range:	100 to 8,000 MHz.
Insertion Loss:	0.2 dB max. up to 4 GHz
	0.3 dB max above 4 GHz
Impedance:	50Ω nominal.
Main Line VSWR:	1.3:1 max. up to 4 GHz
	1.5:1 max above 4 GHz
Power Rating:	50W avg., 1kW peak.
Minimum Isolation:	25 dB (see graph)
DC/Video Path:	
Voltage:	1 kV
Current:	2 A
Resistance:	0.5Ω
Standard Connections:	
RF-RF:	Main Line, male to female
RF-DC:	Main Line male to BNC (f)
Temperature Range:	-55°C to +150°C
Finish:	Silverplate per QQ-S-365

Basic Unit Specifications with N-connectors (N suffix)

Frequency Range, MHz	Length in.(mm)	Height in.(mm)	Weight oz. (g)	Model Number*
100-500	2.7 (69)	2.6 (66)	3.4 (95)	HW-02N
300-750	2.7 (69)	2.2 (56)	3.3 (92)	HW-04N
400-1000	2.7 (69)	2.2 (56)	3.3 (92)	HW-08N
900-2000	2.7 (69)	1.6 (41)	3.0 (84)	HW-15N
2000-4000	2.7 (69)	1.6 (41)	3.0 (84)	HW-30N
4000-8000	2.7 (69)	1.6 (41)	3.0 (84)	HW-60N

*For no DC block in RF path replace prefix HW by HU

Isolation vs. Frequency, GHz (Typical Performance)



Main Line Connector Variations

Connector and suffix		Length in. (mm)	Weight oz. (g)
N	N	reference	reference
BNC*	B	Less 0.3 (8)	Less 1.7 (48)
TNC*	T	Less 0.3 (8)	Less 1.7 (48)
SMA*	F	Less 0.3 (8)	Less 1.7 (48)

*Special Option

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