

WAFL-Series



For Teleports and Satellite Ground Stations

Linearizer Technology
Product Brief
Rev 1

The **WAFL-Series** is a rack mount frontend mini-system used in conjunction with a teleport or satellite ground station existing HPA or SSPA amplifier to provide superior linearity performance. It provides RF gain, predistortion, input and output level control, and RF output power to drive an HPA to saturation. It typically provides a 4x power increase with multicarrier traffic and advanced digital modulation. The **WAFL-Series** is available but not limited to all Satcom uplink bands L- through Q-band.

Typical Uplink Frequency Bands

Frequency Range:	5.850 to 6.725 GHz (C)
	7.900 to 8.400 GHz (X)
	13.75 to 14.50 GHz (Ku)
	17.30 to 18.40 GHz (K)
	27.00 to 31.00 GHz (Ka)
	43.50 to 46.00 GHz (Q)

General Performance

Input Power Level for HPA Rated Power:	-30 to -5 dBm
Output Power for HPA Saturation:	up to +30 dBm
Gain:	> 40 dB (typ.)
Gain Flatness:	< ± 0.5 dB over any 500 MHz
Gain Slope:	< 0.02 dB/MHz
Gain Stability:	< ± 0.75 dB, -20 to +85°C
User Gain Attenuator Range:	32 dB (typ.)
Control:	0 to X Volts or 8/9 Bit Digital (.25/.15 dB step)
Static Phase Shift to HPA Rated Power:	< ± 5 degrees
AM/PM Conversion to HPA Rated Power:	< 2 degrees/dB
Spurious/Noise:	< -135 dBw/4 KHz (max Gain)
Input and Output VSWR:	1.5:1
RF Interface Connectors:	SMA, 2.92, 2.4 mm Female
DC Interface:	15 or 25 Pin Male D-Sub
Controller Interface:	Analog, I ² C, RS232, RS485
DC Power:	20 VAC / 220 VAC (typ.)

Typical Performance w/ TWTA:	<u>Intermodulation (C/I)</u>	<u>Spectral Regrowth</u>
	>25 dBc @ 3 dB OPBO	>36 dB @ 3 dB OPBO
	>30 dBc @ ≥4 dB OPBO	>40 dB @ ≥4 dB OPBO



WAFL-Series
19" 1U Rack Mount Chassis
(cm) 35.6 D x 48.3 W x 4.45 H

FEATURES/OPTIONS

1U Rack Mount

Multiple Interface Options

Analog, I2C, RS232, RS485

Fault Alarm

Power Monitor

Analog or Digital User Attenuator

32 dB, 0-X Volts, 8/9 bit digital

TTL MUTE Function

Dual units available- single chassis

Windows Based Control Software

Contact us for additional custom features.

Any Frequency—Any Power

