

The RPAS, RF Return-Path Amplifier - Standard series, is designed to plug into PBN's latest generation Advanced Intelligent Multi-services Access Platform - the AIMA3000.

The RPAS has two independent amplifier circuits and it accepts return-path RF signals from 5 MHz to 204 MHz through the two RF input ports. The module has an adjustable gain range of 10 dB to 30 dB and has dual output ports.

Electronic gain and slope controls allow the module to be customized for many different configurations.

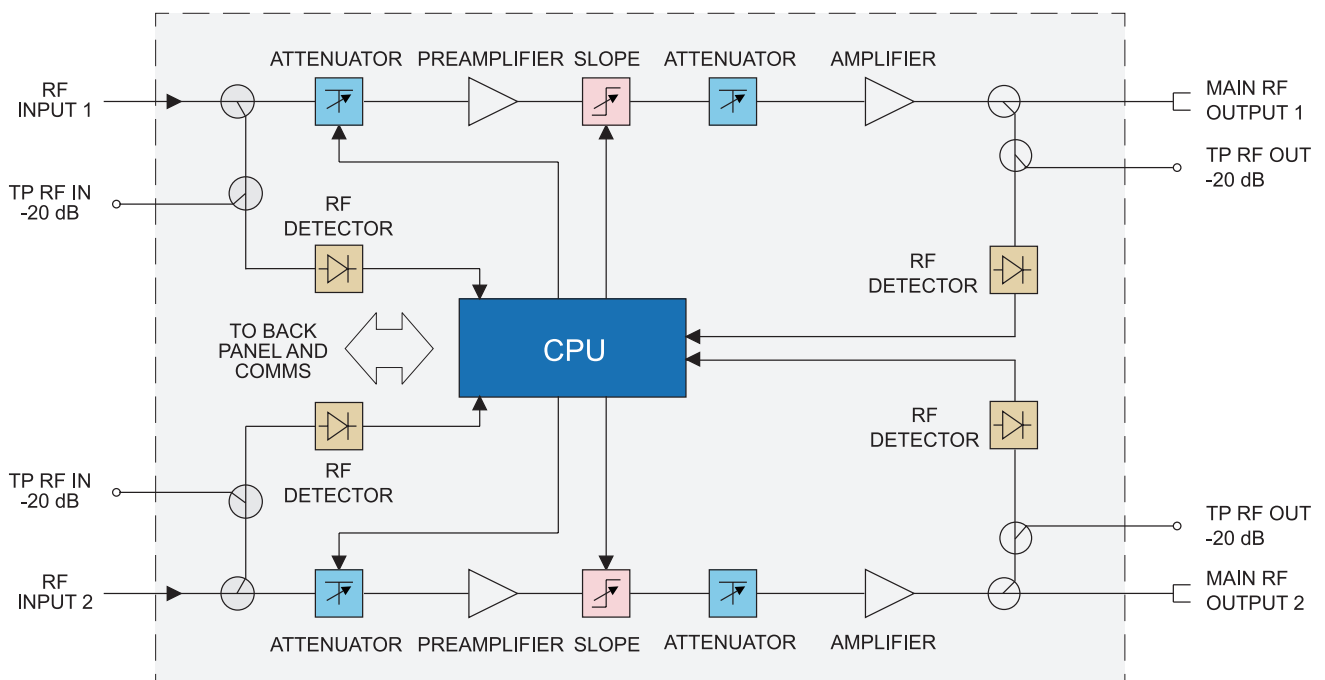
Microprocessor-based status monitoring and control is available locally and remotely through a web interface or by using PBN's NMSE (network management software). All module settings are retained in non-volatile memory to ensure hassle free operation.



Key Features and Functions

- Plug-and-play with the AIMA3000 platform
- Return path amplifier (5 MHz to 204 MHz) supports both analog and digital signal sources
- High linearity, superior low noise profile, and minimal distortion
- Manual gain control (MGC)
- Electronic gain and slope control
- User configurable alarm threshold levels
- Alarm monitoring
- Broadband GaAs amplifier technology
- Remote firmware upgrade and auto upload/download of configuration files through ASMM web interface or using PBN's NMSE
- Fully FCC, CE, and RCM compliant

Block Diagram



Specifications

RF Performance

RF bandwidth	5 MHz to 204 MHz
RF flatness	± 0.5 dB
Noise Figure (NF)	≤ 9 dB
RF Input level	10~30 dBmV per channel
RF Output level ⁽¹⁾	40~60 dBmV per channel @max gain
Gain Range	10 dB to 30 dB
Gain adjustment	0 dB to 10 dB (input gain control) 0 dB to 10 dB (output gain control)
Slope adjustment	0 dB to 5 dB
RF impedance	75 Ω
RF return loss	> 16 dB
RF test point relative to RF output port	-20 dB ± 1 dB
Isolation between RF inputs	50 dB
RF connectors	4 x GSK-type female
RF test points	4 x Mini-SMB
Alarms and status	Front-panel LEDs, SNMP Traps

Link Performance ⁽²⁾

CNR	> 50 dB
IMD2	> 60 dB

General

Power supply	Powered via AIMA3000 backplane
Power consumption	< 10.0 W
Operating temperature	-5 °C to +55 °C
Storage temperature	-25 °C to +70 °C
Operating humidity	90% (non-condensing)
Storage humidity	90% (non-condensing)
Dimensions (WxDxH)	24.6 x 410 x 152.5 mm
Weight	0.98 kg
Supported network management options	PBN's NMSE or through ASMM's Web Interface

Note:

(1) Measured with max gain is 30dB.

(2) Measured in a typical system with 4 channels signal source (11.5 MHz, 26.5 MHz, 45.5 MHz and 58.5 MHz).

Order Details

A-RPAS-[Y]-[Z] | RF Return Path Amplifier - Standard

Options:

Y	Number of RF Ports
	D Dual (2)
Z	Bandwidth
	20 5 ~ 204 MHz

