AIMA-FPAS

RF Forward Path Amplifier - Standard

The RF Forward Path Amplifier - Standard (FPAS) is designed to plug into PBN's latest generation Advanced Intelligent Multi-services Access platform - the AIMA3000.

The FPAS accepts forward-path RF signals from 45 MHz to 1218 MHz through the RF input port. The module provides an adjustable gain of 10 dB.

Electronic gain and slope control allows for the module to be customized for many situations.

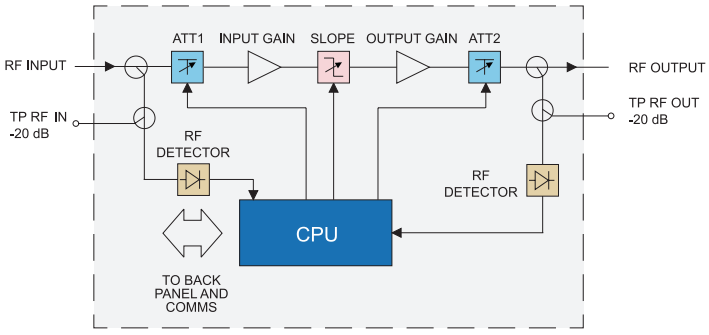
The forward-path version provides Automatic Gain Control (AGC). The FPAS can also be conveniently monitored and controlled through a computer connected to one of the Ethernet ports via the ASMM module.

All module settings are retained in non-volatile memory to ensure trouble-free operation. Bulk updating, automatic uploading and downloading of configuration files can be done when using PBN's NMSE web-based management system.

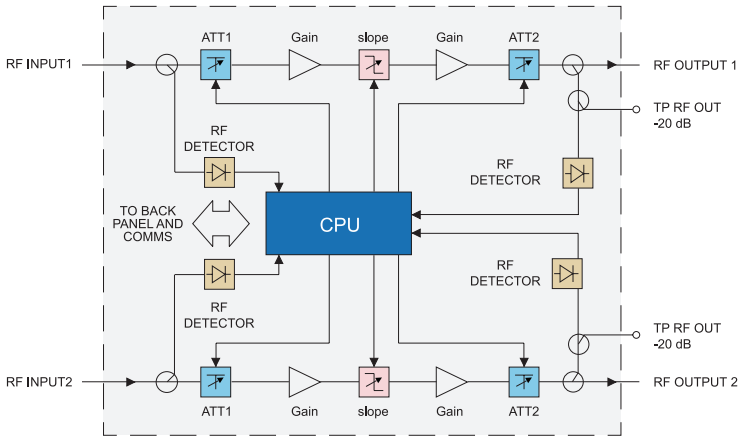
Key Features and Functions

- DOCSIS 3.1 Compatible with operating bandwidth up to 1218 MHz
- Plug-and-play with the AIMA3000 platform
- Forward-path version (45 MHz to 1218 MHz) supports PAL, CENELEC, and NTSC with up to 127 channels
- Supports both digital and analog transmissions
- High linearity, superior low noise profile, and minimal distortion
- Automatic gain control (AGC) or manual gain control (MGC)
- Electronic gain and slope control
- Configurable alarm thresholds at a customer's request
- Alarm monitoring through PBN's NMSE and the ASMM's Web Interface
- Broadband GaAs amplifier technology
- Remote firmware upgrade and auto upload/download of configuration files through ASMM web interface or using PBN's NMSE
- Bulk firmware updates through PBN's NMSE
- Fully FCC, CE, and RCM compliant

Block Diagram



FPAS-S



FPAS-D

AIMA-FPAS

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Specifications

RF Performance

RF bandwidth	45 MHz to 1218 MHz
RF flatness	± 0.75 dB
Noise Figure (NF)	≤ 9 dB
RF Input level	10 dBmV per channel (nominal) (1)
RF Output level	40 dBmV per channel (rating) (1)
Minimum Gain	10 dB
Maximum Gain	30 dB
Gain adjustment range	0 dB to 10 dB (input gain control) 0 dB to 10 dB (output gain control)
Slope adjustment range	0 dB to 9 dB
AGC range (Max)	10 dB
AGC accuracy	± 0.5 dB over AGC range
RF impedance	75 Ω
RF return loss	> 16 dB
RF test point relative	-20 dB ± 1 dB
RF connectors	Single: 2 x GSK-type female Dual: 4 x GSK-type female
RF test points	2 x Mini-SMB
Alarms and status	Front-panel LEDs, SNMP Traps
Path isolation (2)	> 65 dB

Link Performance (1)

CNR	> 60 dB
CSO	> 75 dB
CTB	> 75 dB

General

Power supply	Powered via AIMA3000 backplane
Power consumption	Single: < 12 W Dual: < 24 W
Operating temperature	-5 °C to +55 °C
Storage temperature	-25 °C to +70 °C
Dimensions (WxDxH)	24.6 x 410 x 152.5 mm
Weight	Single: 0.88 kg Dual: 0.98 kg
Supported network management options	PBN's NMSE or through ASMM's Web Interface

Note:
(1) Loaded with 77ch NTSC, RF input= 10 dBmV/ch, Gain= 30 dB.
(2) Path isolation only for FPAS-D.

Order Details

A-FPAS-[Y]-[Z] ..... RF Forward Path Amplifier - Standard

Options:

Y Number of Output Ports
- **S** Single
- **D** Dual

Z Bandwidth
- **1G** 45 ~ 1000 MHz *
- **12** 45 ~ 1218 MHz

** 1GHz option only available for the single ports version.*

Pacific Broadband Networks
Offices: Australia, Melbourne: +61-3-8561-1400 China, Beijing: +86-10-5791-0655 EMEA, Netherlands: +31-36-536-8011
www.pbnglobal.com
info@pbnglobal.com