AIMA-FRAS

- **Plug-and-play with the AIMA3000 platform**
- **Superior performance with a low noise profile and minimal distortion characteristics**
- **High RF output for flexible deployment**
- **Supports Automatic Gain Control (AGC) for a stable RF output**
- **Electronic slope control**
- **Electronic gain setting and AGC adjustable thresholds**
- **Broadband GaAs amplifier technology**
- **Support for CENELEC and NTSC standards up to 110 channels (analogue and digital)**
- **SCTE-HMS MIB compliant**
- **Fully FCC, CE, and RCM compliant**

Overview

The Analog Forward Receiver - Standard (FRAS) is designed to plug into the latest generation Advanced Intelligent Multi-services Access platform - the AIMA3000.

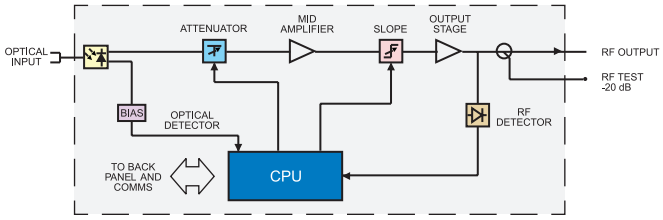
The FRAS is available in single port configurations. It incorporates a low noise front-end circuit that receives optical wavelengths from 1260 nm to 1620 nm and converts them into RF signals for Master Antenna Television (MATV), CATV, and broadband applications. The supported RF bandwidth is from 45 to 1000 MHz.

The module offers a superior frequency response with a low distortion profile and low noise characteristics.

The FRAS optical receiver module features automatic gain control (AGC), which is based on broadband detection.

The RF output AGC threshold level and the slope can be managed remotely.

Block diagram



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Specifications

Optical Performance

Optical wavelength	1260 nm to 1620 nm
Optical input	-5 dBm to +3 dBm
Optical return loss	> 50 dB
Optical connector	SC/APC [1], FC/APC, LC/APC, E2000/APC

RF Performance

RF bandwidth	45 MHz to 1000 MHz
RF output level [2]	40 dBmV [3]
RF flatness	± 0.75 dB
Gain adjustment	0 dB to 20 dB
Slope adjustment	0 dB to 7 dB
AGC range (input variation)	10 dB
AGC accuracy	± 0.5 dB over AGC range
RF impedance	75 Ω
RF return loss	> 16 dB
RF test point relative to RF output port	-20 dB ± 1 dB
RF OUT connector	GSK-type female
RF test point	Mini-SMB
Alarms and status	Front-panel LEDs, SNMP Traps

Link Performance [4]

CNR	> 53 dB
CSO	> 65 dB
CTB	> 70 dB

General

Power supply	Powered via AIMA3000 backplane
Power consumption	< 8.0 W
Operating temperature	-5 oC to +55 oC
Storage temperature	-25 oC to +70 oC
Dimensions (WxDxH)	24.6 x 410 x 152.5 mm
Weight	0.88 kg

Note:

1. Standard option. Contact a Technetix sales representative for availability of other options.
2. Measured in a typical system with 0 dBm optical input, 3%~4% OMI.
3. dBuV=60+dBmV.
4. Loaded with 77 NTSC channels, measured with optical transmitter @ 0 dBm, 3%~4% OMI.

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