APPLIED INSTRUMENTS, INC.

RF TEST AND MEASUREMENT

# RFC-INTF
# Interface Module


The **RFC-INTF** provides an interface and power supply for the RF Cogs™ series of RF modules. While the user can control these modules by direct communication via an $I^2C$ bus, the **RFC-INTF** is designed to provide control of up to 8 or more such modules directly from a PC. In addition, it provides the DC power required by each. Connection from the PC to the Interface Module is accomplished using either a USB or RS-232 interface. The unit facilitates controlling the RF modules by translating simple text commands that it receives into the $I^2C$ signals that the various RF modules require. Note that each controlled module is individually addressable and can be used alone or with additional RF modules of various kinds to make up the system that you require. RF modules are available to perform a number of functions, such as switching, programmable attenuation, or gain.

The $I^2C$ signals and DC power are distributed from the **RFC-INTF** to the modules by latching multi-conductor patch cables. The modules are simply "daisy-chained" together – from one module to the next.

The modules in this series can be mounted flat to a base plate or vertically into an optional 3U sub-rack (standard 19" rack) along with the interface module and other modules.

RF COGS

## MULTI-FUNCTION MODULE SERIES

*Applied Instruments* has been manufacturing RF test and measurement equipment since 1986. Since then, the need for performing certain RF functions has surfaced again and again within our product designs. Not long ago, we began to address those needs by designing several basic modules for internal use. Having found them so useful, we've decided to make these robust and flexible modules available to our customers. We believe they may fill a niche for your RF testing requirements as well.

There are several modules that can be controlled through use of the device detailed in this datasheet. These include a family of fully compatible modules which perform a variety of RF functions that you can use to put together a system of your own. Several are available to choose from.

NOTE: *The software supplied with the Interface Module allows a PC to be used to easily communicate with other RF Cogs™ modules, all of which are individually addressable.*

*Revised 2012-09-28*

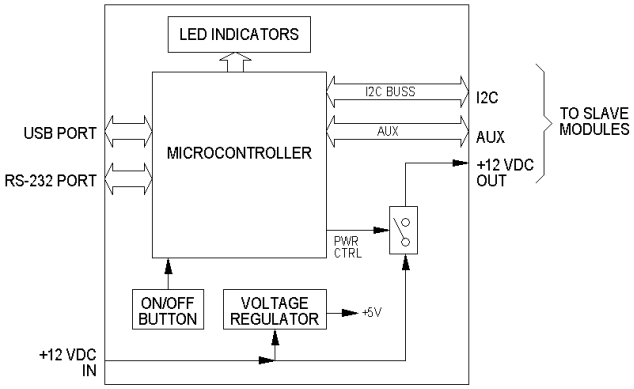
## FEATURES

- Provides easy to use interface which allows RF Cogs™ modules to be controlled by a PC
- Provides the 12V required to power the RF Cogs™ modules which are connected to it
- Can be used with USB or RS-232 interface
- Works with all of the RF modules in the RF Cogs™ series enabling a custom system to be put together
- Versatile mounting options

## APPLICATIONS

- Video and cable system switching
- Test equipment
- Antenna selection
- Filter selection

**FUNCTIONAL BLOCK DIAGRAM**
**INTERFACE MODULE**




## INCLUDED IN THE RFC-INTF PACKAGE

- Operation Manual
- Quick-Start Guide
- RFC-INTF RF Interface Module
- Mounting Hardware
- AC Power Cord
- USB cable assembly
- RS-232 cable assembly

## OPTIONAL ACCESSORIES

- Additional RF modules from the RF Cogs™ Series
- Sub-rack for mounting into a 19” rack (3U height) (model RFC-RM)
- Additional cable assemblies (models RFC-CBLxx)

## ELECTRICAL SPECIFICATIONS

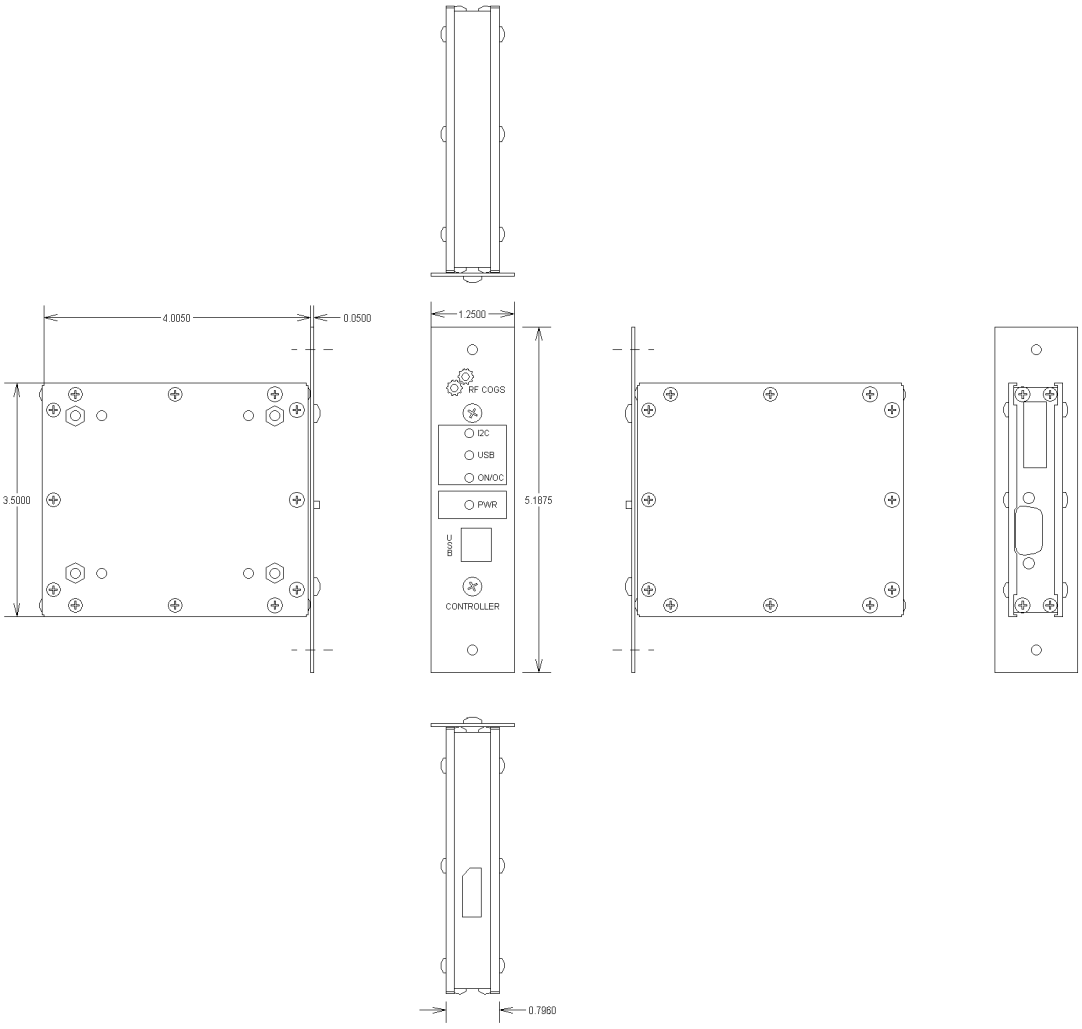
| | |
|---|---|
| ABSOLUTE MAX RATINGS | 15 VDC |
| RECOMMENDED OPERATING CONDITION | 12 VDC |
| LOAD CURRENT | 50 mA to 3 A, depending on modules used |

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| SIZE | Approximately 4 x 3.5 x 0.8 inches or 102 x 89 x 20 mm (See drawing) |
| WEIGHT | 0.6 lbs. (270g) |
| FINISH | Black powder coated, nickel |
| MOUNTING | Sub-rack, end, or bottom using #6-32 screws |
| | End or bottom mounting requires removing front panel |

## ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| OPERATING TEMP | -20 °C to +60 °C (-4 °F to +140°F) |
| STORAGE TEMP | -40 °C to +70 °C (-40°F to +158°F) |




**Warranty**
Warranted for a period of one year against defects in material and workmanship

**Other products offered by Applied Instruments**

| | |
|---|---|
| Satellite Signal Level Meters | CATV / Off-Air Signal Level Meters |
| CW Test Signal Generators | Noise Power Ratio Test Sets |
| Broadband RF Noise Generators | RF Signal Monitors / Switches |


**APPLIED INSTRUMENTS, INC.**

*Focused on providing the best valued test equipment that meets or exceeds customer expectations.*

www.appliedin.com

5230 Elmwood Avenue
Indianapolis, IN 46203 [USA]
Email: info@appliedin.com

Phone: (317) 782-4331
Fax: (317) 786-9665
Toll Free (800) 244-2976 (in USA)


*Applied Instruments takes pride in providing information and technical support to customers when they need it.*