



TANGO
Device
Server

RF Power Amplifier User's Guide

RfPowerAmpli Class

Revision: RfPowerAmpli-Release_1_0 - Author: jensmeyer
Implemented in C++ - CVS repository: tango-ds

Introduction:

Remote control of the RF power amplifier 800A3 from AR / EMV France dedicated to the excitation of the beam in the booster by the shaker

Class Inheritance:

- Tango::Device_4Impl
 - RfPowerAmpli

Properties:

Device Properties		
Property name	Property type	Description
SerialLineDevice	Tango::DEV_STRING	The name of the serial line device to be used.

Device Properties Default Values:

Property Name	Default Values
SerialLineDevice	/dev/ttyS0

There is no Class properties.

States:

States	
Names	Descriptions
ON	The amplifier is ON when the power and RF are turned on.
STANDBY	The amplifier power is turned On and the RF is turned OFF
OFF	The amplifier power and RF are turned OFF
FAULT	Falut indicated by the amplifier

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
RfGain: The RF gain level	DEV_SHORT	READ_WRITE	No
FwPower: Forward power reading	DEV_DOUBLE	READ	No
RevPower: Reverse (reflected) power reading	DEV_DOUBLE	READ	No

Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
PowerOn	DEV_VOID	DEV_VOID
PowerOff	DEV_VOID	DEV_VOID
RfOff	DEV_VOID	DEV_VOID
RfOn	DEV_VOID	DEV_VOID
On	DEV_VOID	DEV_VOID
Off	DEV_VOID	DEV_VOID
Reset	DEV_VOID	DEV_VOID

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection.
After an Init command executed on a device, it is not necessary for client to re-connect to the device.
This command first calls the device *delete_device()* method and then execute its *init_device()* method.
For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method.
The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::ON
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code
- **Command allowed for:**
 - Tango::ON
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**
 - Tango::ON
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT

4 - PowerOn

- **Description:** Turn on amplifier power.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::STANDBY

- Tango::OFF

5 - PowerOff

- **Description:** Turn off amplifier power.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::FAULT

6 - RfOff

- **Description:** Turn off the RF signal.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::STANDBY
 - Tango::FAULT

7 - RfOn

- **Description:** Turn on the RF signal.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::STANDBY

8 - On

- **Description:** Switch on the power and the RF
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT

9 - Off

- **Description:** Switch off the RF and the power.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::STANDBY
 - Tango::FAULT

10 - Reset

- **Description:** Reset a fault condition
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::OFF
 - Tango::FAULT

TANGO is an open source project hosted by :
SOURCEFORGE.NET®

Core and Tools : CVS repository on tango-cs project
Device Servers : CVS repository on tango-ds project