

## RfPowerAmpli Tango Cpp Class

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### RfPowerAmpli Class Identification :

Contact : at null - null  
Class Family :  
Platform :  
Bus :  
Manufacturer :  
Manufacturer ref. :

### RfPowerAmpli Class Inheritance :

- [Tango::DeviceImpl](#)
  - RfPowerAmpli

### RfPowerAmpli Class Description :

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

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## RfPowerAmpli Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
SerialLineDevice	The name of the serial line device to be used.	String	/dev/ttyS0

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RfPowerAmpli Class Commands				
Name	Input type	Output type	Level	Description
<a href="#">State</a>	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its <i>device_state</i> data member) and returns it to the caller.
<a href="#">Status</a>	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its <i>device_status</i> data member) and returns it to the caller.
<a href="#">PowerOn</a>	DEV_VOID	DEV_VOID	OPERATOR	Turn on amplifier power.
<a href="#">PowerOff</a>	DEV_VOID	DEV_VOID	OPERATOR	Turn off amplifier power.
<a href="#">RfOff</a>	DEV_VOID	DEV_VOID	OPERATOR	Turn off the RF signal.
<a href="#">RfOn</a>	DEV_VOID	DEV_VOID	OPERATOR	Turn on the RF signal.
<a href="#">On</a>	DEV_VOID	DEV_VOID	OPERATOR	Switch on the power and the RF
<a href="#">Off</a>	DEV_VOID	DEV_VOID	OPERATOR	Switch off the RF and the power.
<a href="#">Reset</a>	DEV_VOID	DEV_VOID	OPERATOR	Reset a fault condition

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## Command State :

This command gets the device state (stored in its *device\_state* data member) and returns it to the caller.

State Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::DEV_STATE	State Code
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command Status :**

This command gets the device status (stored in its *device\_status* data member) and returns it to the caller.

Status Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::CONST_DEV_STRING	Status description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command PowerOn :**

Turn on amplifier power.

PowerOn Definition		

Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	<ul style="list-style-type: none"> <li>• ON</li> <li>• FAULT</li> </ul>	..

### **Command PowerOff :**

Turn off amplifier power.

<b>PowerOff Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	<ul style="list-style-type: none"> <li>• ON</li> <li>• OFF</li> </ul>	..

### **Command RfOff :**

Turn off the RF signal.

<b>RfOff Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	

DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	• OFF	..

### **Command RfOn :**

Turn on the RF signal.

<b>RfOn Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	<ul style="list-style-type: none"> <li>• ON</li> <li>• OFF</li> <li>• FAULT</li> </ul>	..

### **Command On :**

Switch on the power and the RF

<b>On Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..

Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	• ON	..

### **Command Off :**

Switch off the RF and the power.

<b>Off Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command NOT allowed for	• OFF	..

### **Command Reset :**

Reset a fault condition

<b>Reset Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..

Command NOT allowed for	<ul style="list-style-type: none"> <li>• ON</li> <li>• STANDBY</li> </ul>	..
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RfPowerAmpli Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
<a href="#">RfGain</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	The RF gain level
<a href="#">FwPower</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Forward power reading
<a href="#">RevPower</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Reverse (reflected) power reading

**There is no dynamic attribute defined.**

**Attribute RfGain :**

The RF gain level

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR

Attribute Properties	
label	RF Gain Level
unit	%
standard unit	
display unit	
format	%2d

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set

Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	true
Read allowed for	All states
Write allowed for	All states

max_value	30
min_value	0
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

### **Attribute FwPower :**

Forward power reading

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Forward Power Level
unit	
standard unit	
display unit	
format	%.1f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false

Push Archive event by user code	false
Push DataReady event by user code	Not set

### **Attribute RevPower :**

Reverse (reflected) power reading

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Reverse Power Level
unit	
standard unit	
display unit	
format	%6.1f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

### RfPowerAmpli Class States

Name	Description
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