

# Command:RDADC (RA)

## MS2000 Syntax and Function

<b>Shortcut</b>	RA
<b>Format</b>	RDADC [X?] [Y?] [Z?] [F?] [T?] [M?]
<b>Units</b>	Integer
<b>Remembered</b>	Not Applicable

Returns the present values on the MS-2000's 4-channel ADC. The X and Y channels are used for the joystick. The Z and F channels may be used for special applications, for example Autofocus or ADC\_LOCK and ADC\_FOLLOW modes of controlling the stage. Special firmware is required for these applications.

**X?:** Returns the ADC reading of the joystick X axis.

**Y?:** Returns the ADC reading of the joystick Y axis.

**Z?:** If the system has [Video Autofocus](#), the user can query the focus score with the Z parameter, for example RDADC Z?.

**T? / M?:** If the system has a temperature sensor, the user can query the temperature in 1/100 degrees Celsius with the T parameter ie RDADC T? If there are two temperature sensors present, one connected to channel-1 and the other connected to channel-2 of an ADEPT Hub (I2C breakout board), then the M parameter also becomes active, for example RDADC T? M? would answer with :A 2565 2389 meaning sensor-1 has read 25.65C and sensor-2 has read 23.89C.

### Example

```
RA X Y
:A 128 128
```

Shows typical ADC values for a centered joystick.

## Tiger and TGPMT Syntax and Function

<b>Shortcut</b>	RA
<b>Format</b>	[addr#]RDADC [X?] [Y?] [Z?] [F?] [T?]
<b>Units</b>	Integer
<b>Type</b>	Card-Addressed
<b>Remembered</b>	Not Applicable

On a TGPMT card in a Tiger Controller, this is a Read Only command. It reports PMT signal read through an ADC onboard the TGPMT card.

**X?:** Returns the ADC reading of PMT0

**Y?:** Returns the ADC reading of PMT1

**Z?**: Autofocus related, requires AUTOFOCUS firmware module.

**T?**: Temp sensor related, requires TEMP\_SENSOR firmware module.

[ADC Specification can be found here.](#)

### Example

If the TGPMT card address was **7**,

```
7RDADC X? Y?  
:A 2 1
```

“2” is the ADC reading from PMT0, and “1” is the ADC reading from PMT1

```
7RA X? Y?  
:A 2 1
```

[commands](#), [tgpmt](#), [autofocus](#), [tiger](#), [ms2000](#)

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