

# How to Configure the Tape Output on a 3<sup>rd</sup> Generation Rack-Mount RDMS™ Telemetry Receiver



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23 July 2018**

***Revision 1.1.1***

**Applies to RDMS™ System Version 12**

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# 1 How To Configure Tape Output

This document assumes the use of Windows 7 with access via Telnet.

Access via Telnet is described in section 4.8 of the Installation and Operation Manual for the 3rd Generation Rack-Mount RDMS™ Telemetry Receiver. The contents of this document are also presented as Appendix E in the Rack-Mount Receiver manual.

Contact your local administrator when using other versions of Windows or non-Windows platforms.

## 1.1 Overview

The Tape Output feature uses the I/Video A or the Q/Video B outputs on the 1U rack mount receiver (refer to section 1.3 for 3U connectors). Connectors are listed in Table 1 and locations are illustrated in Figure 1.

Table 1: 1U Tape Output Connectors

Output	Connector
I/Video A Channel 1	J5
Q/Video B Channel 1	J6
I/Video A Channel 2	J19
Q/Video B Channel 2	J20
I/Video A Channel Combiner	J29
Q/Video B Channel Combiner	J30

These connectors ordinarily provide the baseband video outputs. If they are used to drive a bit-sync, that functionality may not be available when using Tape Out.

For PCM/FM, only I/Video A is used for baseband video, leaving Q/Video B available for Tape Out. In any QPSK mode (that requires both I and Q baseband outputs), using Tape Out is mutually exclusive.

**This is not a persistent configuration.** Changing modes or power cycling the unit causes the Video outputs to revert to their normal, baseband outputs.



Figure 1: 1U Rear Panel

## 1.2 Commands

After connecting to Channel 1, Channel 2, or Channel 3 (the combiner), the command prompt displays. The following commands configure the Tape Out on Q/Video B. Anything past the '#' is a comment, and can be discarded.

```
aho b p0t; # Routes Physical channel 0 tape output source to Q/Video B
ahm x.x; # Sets the tape out mixer to x.x MHz
ahm b 1; # Enables the tape out mixer on Q/Video B output
```

The following commands configure the Tape Out on I/Video A.

```
aho a p0t; # Routes Physical channel 0 tape output source to I/Video A
ahm x.x; # Sets the tape out mixer to x.x MHz
ahm a 1; # Enables the tape out mixer on I/Video A output
```

In both cases, the x.x MHz is in the range of 0.075 to 20.0 MHz. Frequencies outside of that range result in unpredictable behavior.

### Example:

To configure Q/Video B out for 5.1 MHz center frequency:

```
Aho b p0t
ahm 5.1
ahm b 1
```

To configure I/Video A out for 2.8 MHz center frequency:

```
aho a p0t
ahm 2.8
ahm a 1
```

### 1.2.1 Notes

**This is not a persistent configuration.** Changing modes or power cycling the unit cause the Video outputs to revert to their normal, baseband outputs.

While the Tape Out can be configured simultaneously on I/Video A and Q/Video B, they cannot have independent frequencies. The frequency specified by 'ahm x.x' will be used for BOTH.

## 1.3 3U Connectors

The Tape Output feature on the 3U Receiver uses the I/Video A, Q/Video B, Video C, and Video D outputs. The 3U connectors are listed in Table 2 and locations are illustrated in Figure 2.

Table 2: 3U Tape Output Connectors

Output	Connector
I/Video A Channel 1	J3
Q/Video B Channel 1	J8
Video C Channel 1	J13
Video D Channel 1	J18
I/Video A Channel 2	J28
Q/Video B Channel 2	J33
Video C Channel 2	J38
Video D Channel 2	J43
I/Video A Channel Combiner	J53
Q/Video B Channel Combiner	J58
Video C Combiner	J63
Video D Combiner	J68



Figure 2: 3U Rear Panel

## 1.4 Troubleshooting

If you are still having difficulties at this point, contact Quasonix technical support.

**Quasonix Technical Support  
(1-513-942-1287) or email (support@quasonix.com)**

When calling technical support, it will speed things up if you have the following information handy:

- Model number **\*\*\*Note that this is different from the customer part number.\*\*\***
- Serial number
- Software Version

It is also helpful if you can call from a phone in your lab so our tech support people can actually walk you through setting, checking, and controlling your receiver.