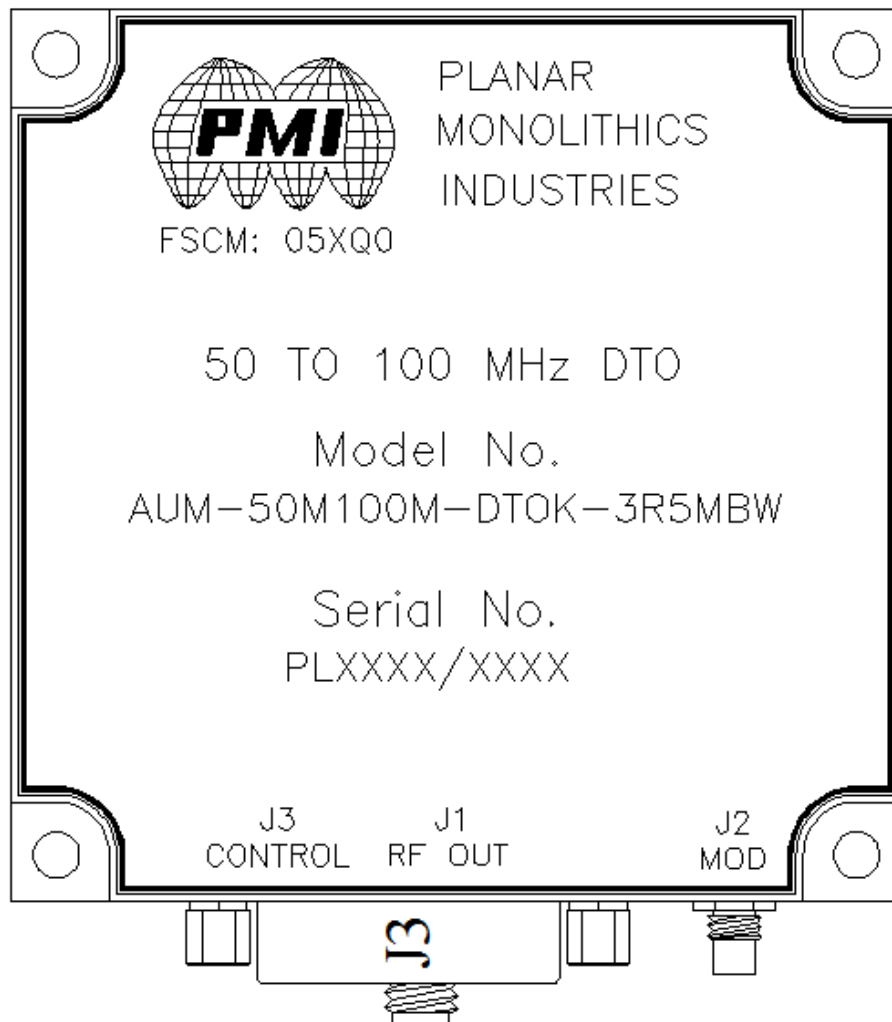




## 50 – 100 MHz DTO

**AUM-50M100M-DTOK-3R5MBW**

# Operating Instructions





**1. Tuning Information for Model AUM-50M100M-DTOK-3R5MBW**

**a. General**

The Tuning Command word consists of:

- 1) A0 to A8 – Frequency command

**b. Frequency command word (A8 MSB to A0 LSB) is defined as follows :**

F = Output frequency (MHz)

X = Frequency command word (decimal code)

$$F = X/10 + 50$$

$$X = (F-50) * 10$$

**Example**

<b>F (MHz)</b>	50	75	100
<b>X (Decimal)</b>	0	250	500

**Note:** Tuning words above 500 (100 MHz) are invalid.

**c. Examples of binary tuning information**

Output Freq. (MHz)	Tuning Word								
	A8 (MSB)	A7	A6	A5	A4	A3	A2	A1	A0 (LSB)
50	0	0	0	0	0	0	0	0	0
100	1	1	1	1	1	0	1	0	0

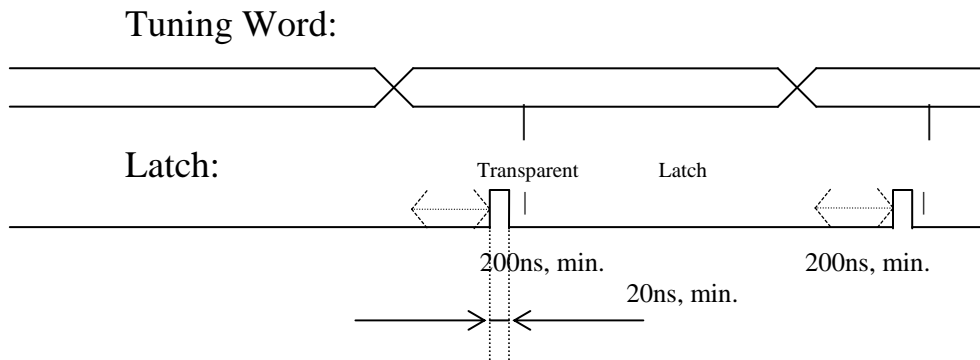


## 2. LATCH (Pins 9, 10, 28)

One bit (LATCH) controls the way data is transferred from the Tuning Word to the output frequency. Applying logic “1” to this input will cause the output frequency to follow the Tuning Word, while applying logic “0” will cause the output frequency to remain latched, irrespective of the Tuning Word.

In order to change the output frequency, the latch should be set to logic “1” 200 ns after changing the tuning word for a duration of at least 20 ns. The latch should then be returned to logic “0” to remain latched at the new frequency.

### Timing Diagram - Latch



## 3. RF OUTPUT

J1, SMA Female connector is used for RF output.

## 4. MODULATION INPUT

J2, SMC male connector is used for the FM modulation port.

Input impedance:  $50\Omega \pm 10\%$ .

This input allows a signal from DC to 3.5 MHz.



### J3- Pin Assignment

<b>PIN NO.</b>	<b>FUNCTION</b>	<b>DESCRIPTION</b>	<b>NOTES</b>
1	A8	TUNING WORD (MSB)	
2	A7	TUNING WORD	
3	A6	TUNING WORD	
4	A5	TUNING WORD	
5	A4	TUNING WORD	
6	A3	TUNING WORD	
7	A2	TUNING WORD	
8	A1	TUNING WORD	
9	A0	TUNING WORD (LSB)	
10	LATCH	LATCH	
11	+15 V	POWER SUPPLY	
12	-15 V	POWER SUPPLY	
13	+5 V	POWER SUPPLY	
14	+28 V	POWER SUPPLY	
15	GROUND	GROUND	