



Programming the PA1418

Serial Data Input

The Dual Modulus divider works as follows:

$$M = (S+(P*32))*100\text{kHz}$$

M = desired frequency

P = multiplier integer

S = adder integer

For example, 91.5 MHz is the desired frequency:

$$91.5\text{MHz} = (S+(P*32))*100\text{KHz}$$

$$915 = (S+(P*32))$$

$$915/32 = 28.59;$$

$$28*32 = 896$$

$$915-896 = 19$$

P is rounded to the lowest integer 28

(use this number to find S)

$$(S = 19)$$

Therefore the bit sequence with stereo output will be the following (Starting from left to right):

T0	T1	PD0	PD1	M/S	S0	S1	S2	S3	S4	P0	P1	P2	P3	P4	P5
0	0	0	0	1	1	1	0	0	1	0	0	1	1	1	0

The FM board has been adjusted for optimal audio quality but adjustments can be made.

- o VR1 and VR2 are adjustments to the audio level of the left and right audio channels.
- o VR3 is used to adjust the multiplexed output. (If needed this can also be used to mute the audio signal) The mute function has been disabled on this board.