



# HAB-NTX2B-FA

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## NTX2B-FA Datasheet

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### Description

The HAB Supplies NTX2B-FA is a frequency agile version of Radiometrix's NTX2B radio module. General data is as per the Radiometrix official datasheet available here:

<http://www.radiometrix.com/files/additional/NTX2B.pdf>

HAB Supplies have modified the NTX2B-FA to permit the selection of channels via a serial connection to the EN pin. Frequency selection is via 235 channels starting at 434.05000Mhz up to 434.781250Mhz with 3.125khz channel spacing.

The module will perform as per its label frequency when shipped and will perform exactly as a stock NTX2B would should you not wish to take advantage of the added features of the –FA model. The EN pin can still be used to turn the device on and off.

### Selection of Channels

To select a channel open a 4800 baud ASCII 8N1 serial connection to the EN pin. There is no TX pin back from the module so commands are not acknowledged.

The following commands are available:

- <0x80>chXX<cr>        -        Sets the channel on the fly. Setting will be lost on power cycle.
- <0x80>wrXX<cr>        -        Sets the channel and writes the setting to EPROM. Setting retained on power cycle.
- <0x80>trXX<cr>        -        Trim value defaults to 7F. Tunes +/- 1.6khz of channel frequency in steps of 12.4hz. Setting retained on power cycle.

Sample Arduino code using software serial :

```
#define RADIOEN 2
SoftwareSerial NTX2EN(13, RADIOEN); // RX, TX
NTX2EN.begin(4800);
delay(100);
NTX2EN.write(0x80);
NTX2EN.print("wr18\r");
delay(100);
NTX2EN.end();
```

## Channels List

00 = .050000	20 = .150000	40 = .250000	60 = .350000	80 = .450000	A0 = .550000	C0 = .650000	E0 = .750000
01 = .053125	21 = .153125	41 = .253125	61 = .353125	81 = .453125	A1 = .553125	C1 = .653125	E1 = .753125
02 = .056250	22 = .156250	42 = .256250	62 = .356250	82 = .456250	A2 = .556250	C2 = .656250	E2 = .756250
03 = .059375	23 = .159375	43 = .259375	63 = .359375	83 = .459375	A3 = .559375	C3 = .659375	E3 = .759375
04 = .062500	24 = .162500	44 = .262500	64 = .362500	84 = .462500	A4 = .562500	C4 = .662500	E4 = .762500
05 = .065625	25 = .165625	45 = .265625	65 = .365625	85 = .465625	A5 = .565625	C5 = .665625	E5 = .765625
06 = .068750	26 = .168750	46 = .268750	66 = .368750	86 = .468750	A6 = .568750	C6 = .668750	E6 = .768750
07 = .071875	27 = .171875	47 = .271875	67 = .371875	87 = .471875	A7 = .571875	C7 = .671875	E7 = .771875
08 = .075000	28 = .175000	48 = .275000	68 = .375000	88 = .475000	A8 = .575000	C8 = .675000	E8 = .775000
09 = .078125	29 = .178125	49 = .278125	69 = .378125	89 = .478125	A9 = .578125	C9 = .678125	E9 = .778125
0A = .081250	2A = .181250	4A = .281250	6A = .381250	8A = .481250	AA = .581250	CA = .681250	EA = .781250
0B = .084375	2B = .184375	4B = .284375	6B = .384375	8B = .484375	AB = .584375	CB = .684375	EB = -
0C = .087500	2C = .187500	4C = .287500	6C = .387500	8C = .487500	AC = .587500	CC = .687500	EC = -
0D = .090625	2D = .190625	4D = .290625	6D = .390625	8D = .490625	AD = .590625	CD = .690625	ED = -
0E = .093750	2E = .193750	4E = .293750	6E = .393750	8E = .493750	AE = .593750	CE = .693750	EE = -
0F = .096875	2F = .196875	4F = .296875	6F = .396875	8F = .496875	AF = .596875	CF = .696875	EF = -
10 = .100000	30 = .200000	50 = .300000	70 = .400000	90 = .500000	B0 = .600000	D0 = .700000	F0 = -
11 = .103125	31 = .203125	51 = .303125	71 = .403125	91 = .503125	B1 = .603125	D1 = .703125	F1 = -
12 = .106250	32 = .206250	52 = .306250	72 = .406250	92 = .506250	B2 = .606250	D2 = .706250	F2 = -
13 = .109375	33 = .209375	53 = .309375	73 = .409375	93 = .509375	B3 = .609375	D3 = .709375	F3 = -
14 = .112500	34 = .212500	54 = .312500	74 = .412500	94 = .512500	B4 = .612500	D4 = .712500	F4 = -
15 = .115625	35 = .215625	55 = .315625	75 = .415625	95 = .515625	B5 = .615625	D5 = .715625	F5 = -
16 = .118750	36 = .218750	56 = .318750	76 = .418750	96 = .518750	B6 = .618750	D6 = .718750	F6 = -
17 = .121875	37 = .221875	57 = .321875	77 = .421875	97 = .521875	B7 = .621875	D7 = .721875	F7 = -
18 = .125000	38 = .225000	58 = .325000	78 = .425000	98 = .525000	B8 = .625000	D8 = .725000	F8 = -
19 = .128125	39 = .228125	59 = .328125	79 = .428125	99 = .528125	B9 = .628125	D9 = .728125	F9 = -
1A = .131250	3A = .231250	5A = .331250	7A = .431250	9A = .531250	BA = .631250	DA = .731250	FA = -
1B = .134375	3B = .234375	5B = .334375	7B = .434375	9B = .534375	BB = .634375	DB = .734375	FB = -
1C = .137500	3C = .237500	5C = .337500	7C = .437500	9C = .537500	BC = .637500	DC = .737500	FC = -
1D = .140625	3D = .240625	5D = .340625	7D = .440625	9D = .540625	BD = .640625	DD = .740625	FD = -
1E = .143750	3E = .243750	5E = .343750	7E = .443750	9E = .543750	BE = .643750	DE = .743750	FE = -
1F = .146875	3F = .246875	5F = .346875	7F = .446875	9F = .546875	BF = .646875	DF = .746875	FF = -