Operating Modes

Mode	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
NORMAL	X	X	X	X	X	X	0	0
TX (ON) + Data	X	X	X	X	X	X	1	0
TX (ON) un-mod	X	X	X	X	X	X	0	1
TX on Free Run	X	X	X	X	X	X	1	1

Normal:

The transmitter transmits data entered via the data input pin. Upon the presence of data the unit wakes up from its idle mode, reads the DIP switch, calculates the programme constants and programs the operating frequency.

After a delay it then wakes up the VCO and the PA stages. Data is then transmitted.

Test Mode [TX(on) + Data]:

The transmitter again wakes up as in the normal mode but this time produces a carrier modulated with a square wave carrier. (Frequency TBA)

Test Mode [TX(on) + (un-mod)]:

The transmitter wakes up as in the normal mode but the transmission is not modulated (held at logic low).

Test Mode [TX(on) Free run]:

The VCO and PA are switched on without the synthesizer being programmed. Application: For factory testing of the VCO gain and span.

Frequency Programming Table for FCC part 90 Band

Frequency	SW1	SW2	SW3	SW4	SW5	SW6	NM1	NM2	NM3	NM4	CN	NR	NF
464.075	0	0	0	0	0	0	30	0	3	0	196	50	4
464.100	1	0	0	0	0	0	30	0	3	0	196	50	5
464.125	0	1	0	0	0	0	30	0	3	0	196	50	6
464.150	1	1	0	0	0	0	30	0	3	0	196	50	7
464.175	0	0	1	0	0	0							
464.200	1	0	1	0	0	0							
464.225	0	1	1	0	0	0							
464.250	1	1	1	0	0	0							
464.275	0	0	0	1	0	0							
464.300	1	0	0	1	0	0							
464.325	0	1	0	1	0	0							
464.350	1	1	0	1	0	0							
464.375	0	0	1	1	0	0							
464.400	1	0	1	1	0	0							
464.425	0	1	1	1	0	0							
464.450	1	1	1	1	0	0							
464.475	0	0	0	0	1	0							
464.500	1	0	0	0	1	0							
464.525	0	1	0	0	1	0							
464.550	1	0	0	0	1	0							
464.575	1	1	0	0	1	0							
464.600	0	0	1	0	1	0							

Note: **32 bit A word format is to be used, hence A1 is used.**

A1(MSB)(32-bit):

[0][NF(2).. NF(0)] [NM1(11) .....NM1(0)][NM3(3)..NM3(0)][NM2(3)..NM2(0)][CN(7)..CN(0)]

B (24bit):

[1000][NM4(3..NM4(0)][CN(7).....CN(0)][CK][CL][PR]

C (24bit)

[1001][..... na .....][PA][0000000]

D (24bit):

[1010][NR(11).....NR(0)][SM][EM][SA][EA][FMOD][LONG]

PR	=	10
NF	=	000
FMOD	=	1
LONG	=	1
CN	=	See table
CL	=	00
EM	=	1
EA	=	0
SM	=	00
SA	=	00
NR	=	50
NA	=	00
PA	=	00