$Chan_{asgn}$ is the channel assignment given to the terminal for the packet transmission

$NumChan$ is the number of return link frequency channels

C.4 Tune-up procedure

Refer to session C.1 through C.3.

C.5 Frequency stability device

A voltage controlled, temperature compensated, crystal oscillator (VCTCXO) is employed as a frequency reference for all of the transceiver local oscillators. This crystal oscillator is specified to remain within +/- 8 ppm over temperature and voltage variations. The lock status indicator of all synthesizers is monitored by the microprocessor and an out of lock condition will inhibit transmission.

C.6 Spurious suppression

C.6.1 Suppression device

Reference Designator	Part Name	Function
Rx amp filters	Image reject BPF	Provides protection against receive spurious emissions and receiver local oscillator leakage
Tx amp filters	TX BPF	Provides protection against transmitter spurious emissions and transmit local oscillator leakage
Rx amp mixer filters	Rx PA filter	Provides protection against receiver local oscillator leakage
Tx amp mixer filters	TX PA filter	Provides suppression of spurious energy and transmitter harmonics
Rx IF filter	RX_IF BPF	Provides other than RX_IF emission
Tx IF filter	TX_IF BPF	Provides other than TX_IF emission
Sheet shields	SHSH1, 2, 5, 6, 8, 10, 11, 13, 14, 15, 21	Provides on-board shielding of critical circuits that might generate spurious emission
LC filters	numerous	Provides suppression of emission from power switch and digital circuit

C.6.2 Frequency hopping correction factor

The RF spurious emissions being radiated in carrier-on state by the SDM are harmonically related to the local oscillators (and their mixed products) in the digital

and RF CCA. The local oscillators are tuned to different frequencies every 20 ms (half of the hopping period) to switch between the receive frequency and the hopped transmit frequency and vice versa. Due to this constant re-tuning of the local oscillators, the frequencies of the spurious emissions are constantly changing, or hopping, every 20 ms as well. This hopping of the spurious emissions allows us to spread their power over the entire hopping bandwidth (36 MHz for domestic system) of the transmitted signal. If the measurement bandwidth is 100 kHz, there is a spreading factor of:

$$10\log\left(\frac{36{,}000}{100}\right) = 25.6 \text{ dB}$$

The hopping of the spurious emissions can also be seen in factory mode by setting up the spectrum analyzer to measure a spurious emission in any given 100 kHz band, and simply changing the transmit frequency on the display unit screen. The spurious response of the SDM will change depending on the transmit frequency in hopping.

The above spread factor of 25.6 dB can be taken into account in the measurement of carrier-on spurious emissions.