

Operational Description

The device is a AC750 wireless Travel router which operates at 2.4 GHz and 5 GHz band and supports IEEE 802.11a/b/g/n/ac transmission modes. The device supports 2TX MIMO function to provide high speed transmission rate and WPS function to connect with other devices more easily.

RF main chip	MT7620AH / MT7610E
Frequency range (MHz)	2412~2462 / 5180 ~ 5240 / 5745~5825
Modulation type	DBPSK, DQPSK, CCK BPSK, QPSK, 16QAM, 64QAM, 256QAM
Oscillating frequency (MHz)	25 / 40
Antenna type	PIFA 2dBi gain @ 2.4GHz 3dBi gain @ 5GHz
TX MIMO	2TX MIMO

Channel and frequency	802.11 b / g / n HT20		802.11n HT40	
	Channel	Freq.(MHz)	Channel	Freq.(MHz)
	1	2412	3	2422
	2	2417	4	2427
	3	2422	5	2432
	4	2427	6	2437
	5	2432	7	2442
	6	2437	8	2447
	7	2442	9	2452
	8	2447		
	9	2452		
	10	2457		
	11	2462		

Channel and frequency	802.11 a / HT20 / VHT20		802.11n HT40 / VHT 40	
	Channel	Freq.(MHz)	Channel	Freq.(MHz)
	36	5180	38	5190
	40	5200	46	5230
	44	5220	151	5755
	48	5240	159	5795
	149	5745		VHT80
	153	5765	42	5210
	157	5785	155	5775
	161	5805		
	165	5825		

Data transmission is always initiated by software, which is then pass down through the MAC , through the digital and analog baseband, and finally to the RF chip. Several special packets (ACKs, CTS , PSpoll, etc) are initiated by the MAC. There are the only ways the digital baseband portion will turn on the RF transmitter, which it the turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets are being transmitted.