

XS Wireless Description for Frequency Range Difference

XS Wireless monitoring system has two frequency range, 476 ~ 500MHz and 572 ~ 596MHz. Considering that the two frequency ranges have the same function, are within the working range of UHF frequency and the difference is less than 500MHz, we adopt the same PCB and appearance in the design, but used different RF components schemes to achieve the frequency signal we need by changing the value of RF element.

The following figure shows the values of components in different frequency range:

XSW IEM-T Components List																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Frequency Range	VCO	C324	C329	C336	C337	C338	C339	C340	C341	C342	R360	R364	R523	R522	R517	R518	R519	R305	R306
476~500MHz	E485	3P	2P	1P	6P	6P	10P	6P	6P	6P	180R	180R	0R	/	/	/	/	22K	68R
572~596MHz	E596	3P	1P	/	5P	5P	8P	5P	7P	7P	100R	150R	/	0R	/	/	/	18K	68R

Referring to the schematics it can be verified in the variation table, that the difference between 476 ~ 500MHz and 572 ~ 596MHz are a few passive components and the oscillator, which is frequency dependent.

Please find the datasheets of this oscillator where you can see that it comes from the same manufacturer and is beside the pin to pin compatibility identical in terms of its specification. Only the operating frequency range is different. Such a component usually consists of a small PCB, where some passive components (usually coils) makes the difference between both. Which results in, that also here only passive components makes the difference between both VCOs.

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