



E-band Products

For the next generation communication

October 2015



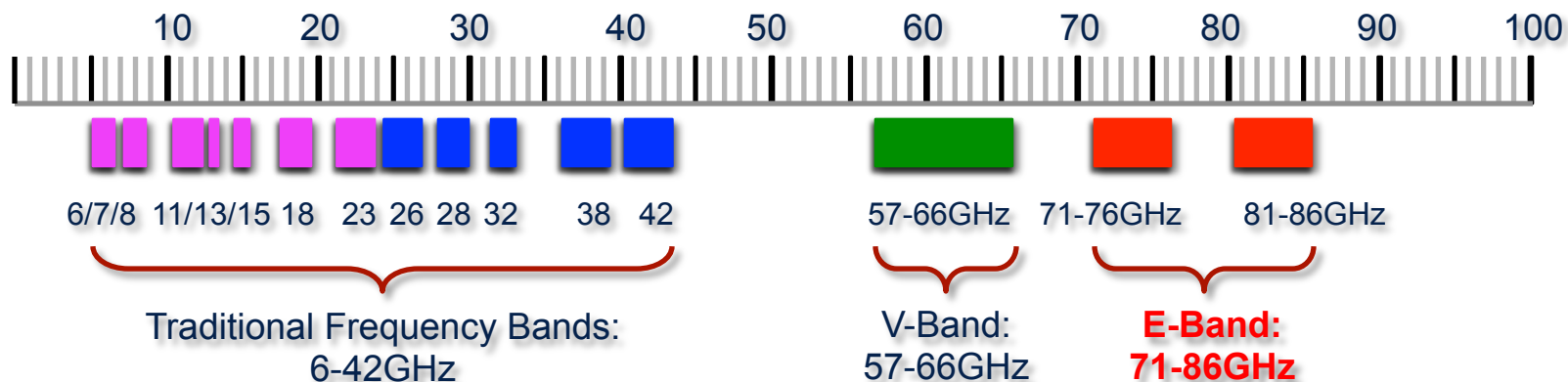
- Suzhou Hexagon Communication Technologies Co., Ltd., located in Kunshan Economic Development Zone, China, is an ISO certificated manufacturer in business of passive microwave devices.
- Our products, covering from RF Filters, Diplexers, Multiple Band Combiners, POIs and Waveguide Filters, OMT Kits and Waveguide Combiners etc., for mobile communications, microwave communications, satellite communications and radar applications.
- Hexagon's markets are primarily Europe, America, Middle East, Hong Kong, Macau, Taiwan and Southeast Asia.
- The highest priority of Hexagon is customer's satisfaction and product quality.



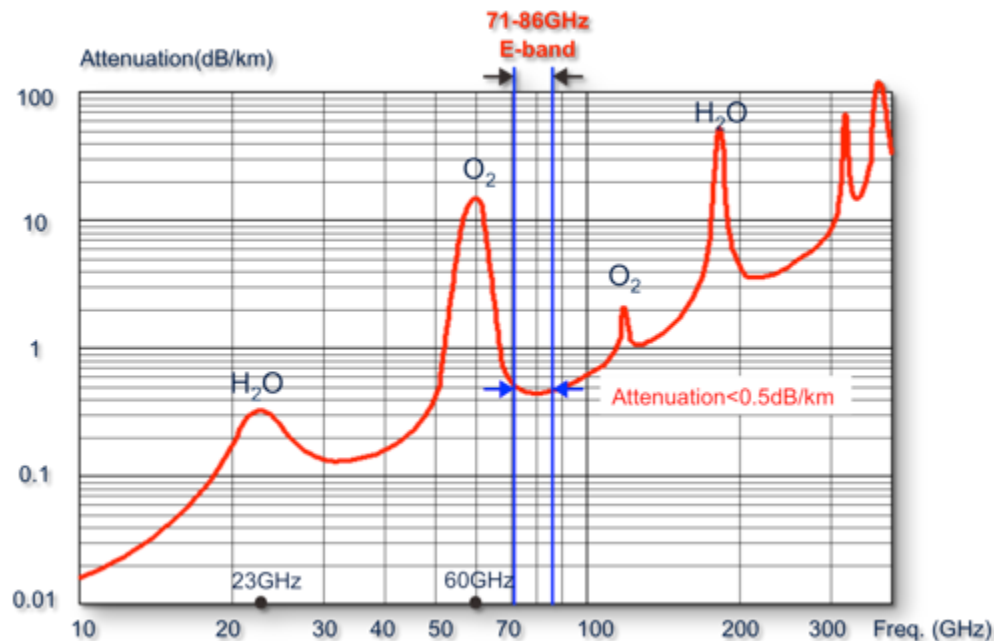
- Till 2017, more than 500 LTE networks will be deployed worldwide
- The next generation 5G to be coming on 2020
- Smaller coverage range means denser BTS deployment than 2G and 3G
- Much higher throughput challenge operators' bearer network
- New BTS requires huge resources of fiber and microwave for backhaul
- Spectrum resources of traditional microwave (6-42GHz) is very tight
- E-band, which provides ultra wide bandwidth, is increasingly concerned...
- E-band already come into commercial in Europe and Middle East etc.



- Traditional frequency bands: 6/7/8/11/13/15/18/23/26/28/32/38/42GHz
- Because of high atmosphere attenuation, V-band (57-66GHz) works in short range of 200-300 meters
- However, E-band (71-86GHz) is much better than V-band



- As right graph, atmosphere attenuation in E-band is less than 0.5dB/km, which is almost negligible
- By the test data, E-band equipment can work stable within 2-3km range
- Ultra narrow beam width of E-band antenna as 0.5° , zero interference
- E-band, called as virtual fiber, can provide Gbps level throughput
- We may see streets to be full of E-band products in the near future



	Traditional bands: 6-42GHz	E-band: 71-76GHz/81-86GHz
Spectrum Resources	Max 3GHz/band	10GHz
Channel Bandwidth	7/14/28/56/112MHz	Nx250MHz
Max Throughput	500Mbps (56MHz@2048QAM)	2.5Gbps (2x250MHz@64QAM)

E-band Products

- Frequency Range: 71-76GHz/ 81-86GHz
- Product Type: Diplexer, OMT, Splitter and 6dB Coupler etc.
- High performance based on professional design and precision machining technology
- Available for indoor applications
- Applications: microwave relay systems, point-to-point communication systems which can provide ultra high capacity
- Waveguide interface and outline dimensions can be customized according to customer requirements



E-band Diplexer



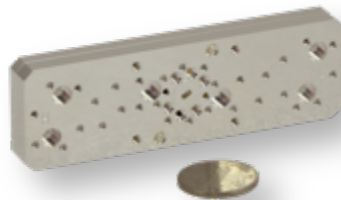
OMT



Splitters

V-band Products

- Frequency Range: 57- 66GHz
- Product Type: Diplexer, OMT, Splitter and 6dB Coupler etc.
- High performance based on professional design and precision machining technology
- Available for indoor applications
- Applications: microwave relay systems, point-to-point communication systems which can provide ultra high capacity
- Waveguide interface and outline dimensions can be customized according to customer requirements



V-band Diplexer



Thank You

More information, please visit www.hexagontek.com

