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# Near Term Emerging Technologies



Technologies	Notes
<b>IEEE 802.11ac</b>	5 GHz band - incorporates beam-forming, wide bands and multiple antennas to deliver data speeds up to 1.3 Gbps, compared with peak rates of 600 Mbps with 802.11n. 802.11ac also supports longer ranges and better penetration through walls
<b>LTE Video Broadcasting</b>	LTE Broadcast using evolved Multimedia Broadcast Multicast Service (eMBMS) is a multicast technology. LTE Broadcast allows the same content to be sent to a large number of subscribers simultaneously, resulting in a more efficient use of network resources rather than each user requesting the same content and then having the content unicast to each user
<b>Voice over LTE (VoLTE)</b>	Employs the IP Multimedia Subsystem (IMS) technology, which allows carriers to deliver voice as a data application.
<b>LTE Release 11 – Carrier Aggregation</b>	MBMSR – Multi Band Multi Standard Radio Continuity of MBMS service
<b>Cognitive Radio</b>	automatically detects available channels in wireless spectrum, then accordingly changes its transmissions and reception parameters to allow more concurrent communications in a given spectrum band at one location



# How Much does Spectrum Cost?



<b>Block</b>	<b>Final Price per MHz/POP</b>	<b>Auction 73 - Notes</b>
<b>A</b>	\$1.07	12 MHz Paired - No Conditions – Interference – Larger Geographic Units (176 EA's)
<b>B</b>	\$2.68	12 MHz Paired - No Conditions – No Interference – Smaller Geographic Units (734 CMA's)
<b>C</b>	\$0.76	22 MHz Paired - Open Access Condition – Large Geographic (12 REAG's)
<b>D</b>	\$0.17	10 MHz Paired - Extreme Wholesale Condition re Public Safety – 1 National License
<b>E</b>	\$0.74	6 MHz – Unpaired – Larger Geographic Units (176 EA's)



# Contact



For more information please feel free to contact:

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