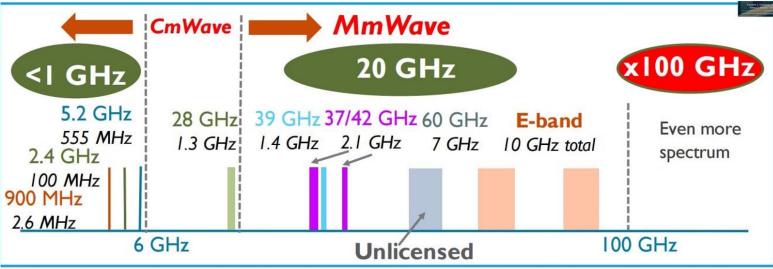


# Aimtec's 5G Network Applications

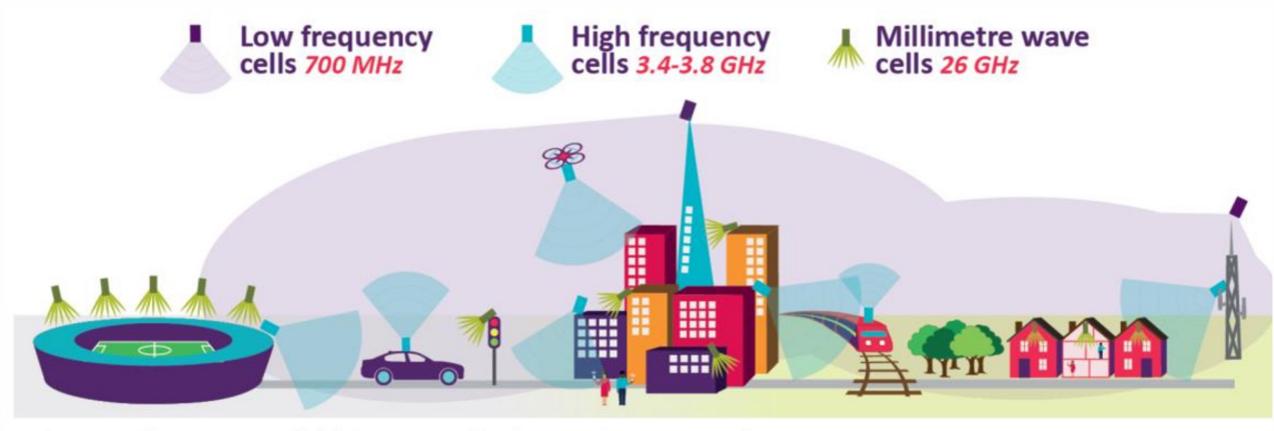
#### What is the 5G Spectrum?







### **Applications Covered by the 5G Spectrum**



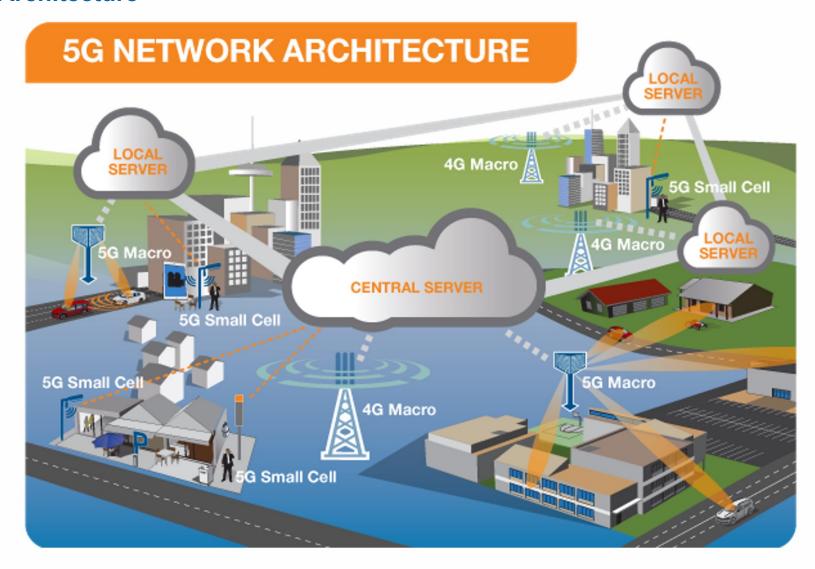
Large scale events Thousands of users Vehicle communications Transport infrastructure Environmental monitoring & Smart cities

Transport & infrastructure

Improved residential connections,
Smart energy

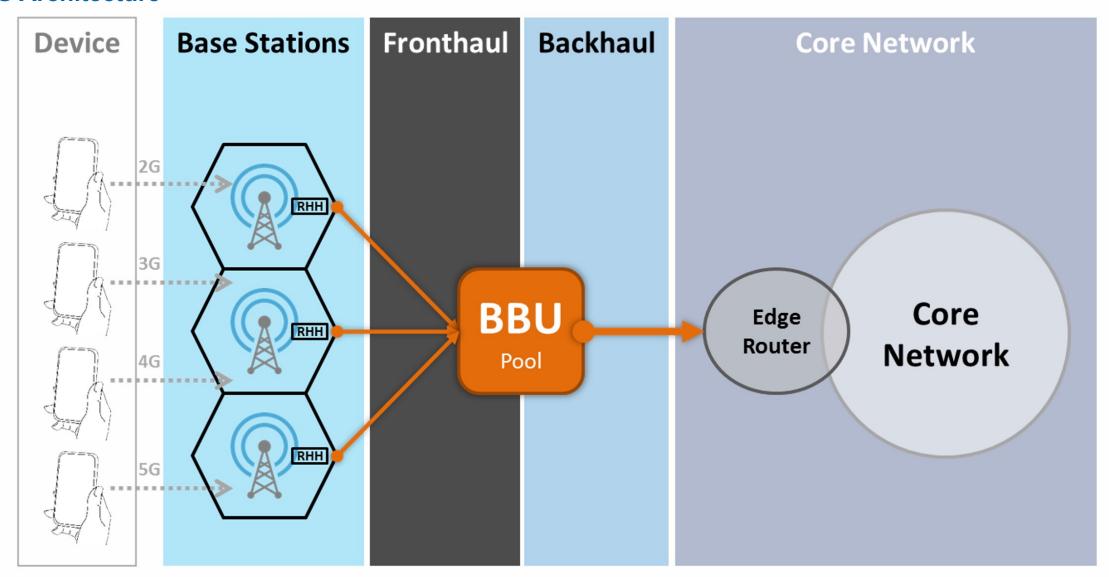


#### **5G Architecture**



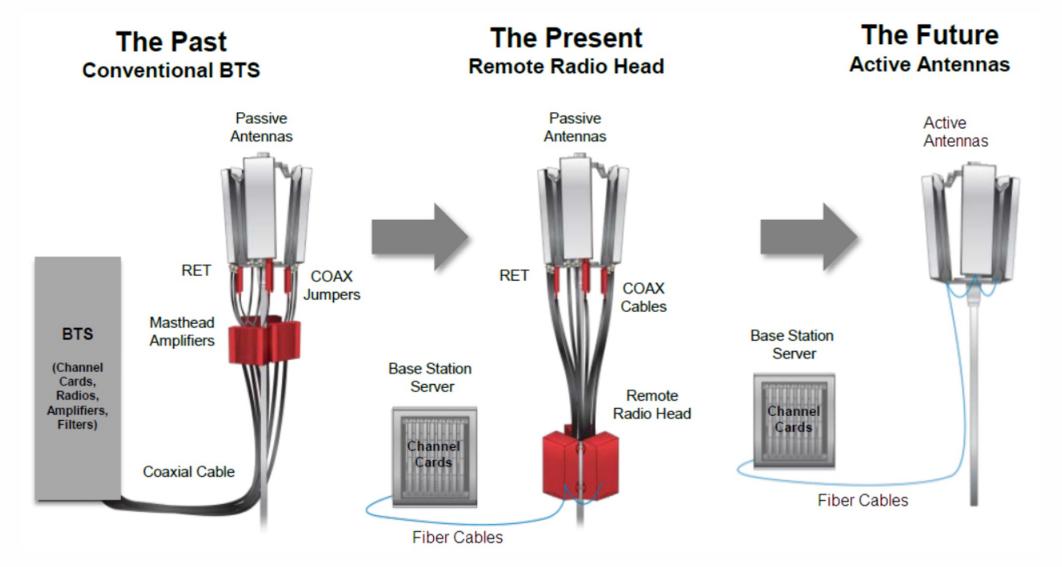


#### **5G Architecture**





#### **5G Base Station Architecture**





#### Requirements for Power Supplies Used in 5G Applications

- 1) High Power density to minimize the space requirements
- Low no-load power consumption to reduce power losses during idle states
- High efficiency to reduce power consumption and heat produced
- High Reliability to minimize equipment failures after deployment
- 5) Wide input voltage range and high isolation between circuits to cater to a wide variety of application environments.
- 6) Short transient recovery time for powering FPGA's and DSP's





### **Aimtec Models for 5G Applications**

Universal input voltage

85-264 VAC, 18-75 VDC

**High Isolation** 

**Between Circuits** 

High **efficiency** and max capacitance load.

Low no Load

Power Consumption

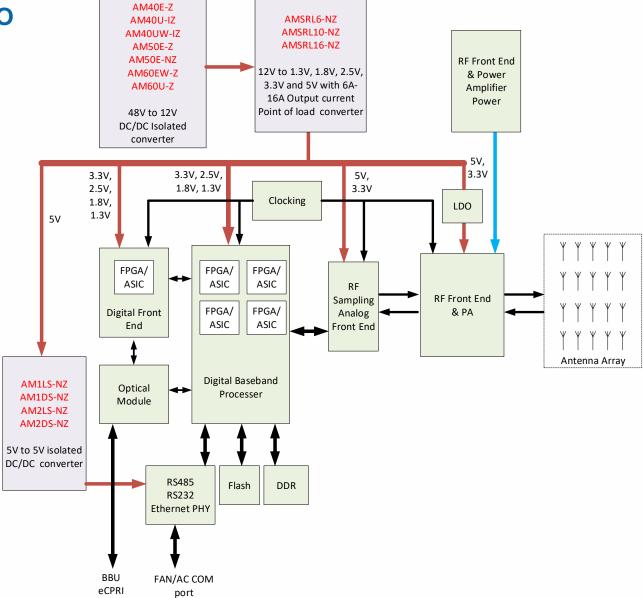
Standards and EMC

IEC/UL/EN 62368 and 60950 EN55022/32 Class B

<b>Switching Regulators</b>	DC/DC	DC/DC	DC/DC	AC/DC	AC/DC
AMSWL6-NZ	AM1DR-JZ	AM6T-Z	AM20E-NZ	AME10-CVZ	AME30-MAZ
AMSWL10-NZ	AM1LS-JZ	AM6C-NZ	AM30K-IZ	AME15-CVZ	AME40-CJZ
AMSWL16-NZ	AM1DS-JZ	AM6G-NZ	AM30K-NZ	AME15-CJZ	AME40-MAZ
	AM1SS-JZ	AM10TW-NZ	AM40U-IZ	AME15-JZ	AME40-MJZ
	AM1G-Z	AM10CW-NZ	AM50E-NZ	AMEL20-CJZ	AME60-MJZ
	AM1A-Z	AM10E-SZ	AM60EW-Z	AME20-CVZ	
	AM2G-Z	AM10T-NZ	AM60U-Z	AME25-CVZ	
	AM3G-NZ	AM15E-NZ	AM75QB-NZ	AME25-JZ	
	AM3T-NZ	AM15E-Z	AM100QB-NZ	AME25-CJZ	
	AM5T-Z	AM15CW-NZ	AM150QB-NZ	AME25-MJZ	
	AM6T-NZ	AM20CW-NZ	AM150HB-NZ	AME25-VZ	

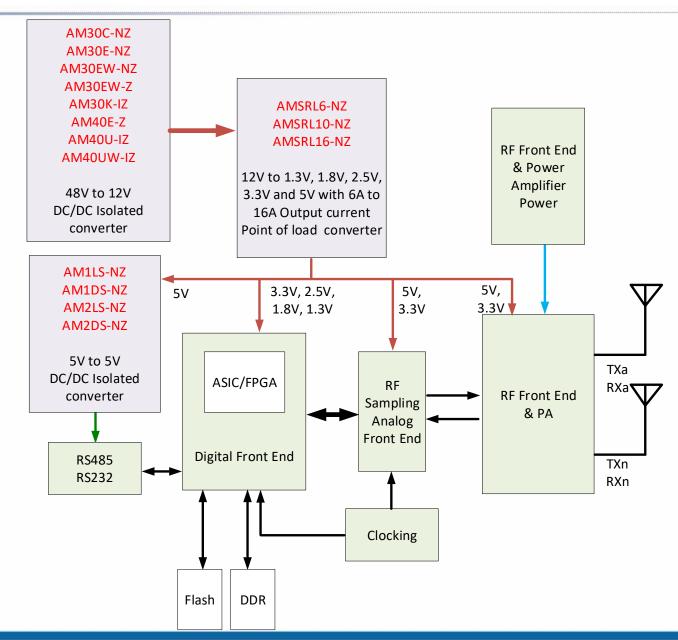


## Block Diagram – AAS massiveMIMO Sub 6GHz





## Block Diagram – Remote Radio Unit Sub 6GHz





## **Block Diagram – Small Cell Base Station**

