5G will bring 10x to 100x improvement over the existing 4G LTE. Cellular LPWAN is important to make our life intelligently connected. NB-IoT and LTE-M are LPWAN radio technology standards with the former one focusing on indoor, low-cost, long battery life and high-density connection, and the latter one concentrating on machine-to-machine communication.

**EVOLUTION OF CELLULAR GENERATIONS**

- **1G**: Voice
- **2G**: Data
- **3G**: Cloud computing
- **4G**: Broadband & critical communication
- **5G**: NB-IoT & LTE-M (cellular LPWAN: low-power wide-area network)

**APPLICATIONS**

- **Small Cell**: Femto, Pico Cells
- **WLAN**: Gateways, AP’s, Routers
- **IoT Devices**: Acoustic, POS, Smart Medical / Health Devices, Entertainment
- **Smart Buildings**: Security, Surveillance, Lighting
- **Smart Environment**: Metering, Street Lighting, Industrial IoT, Energy Management, Predictive Maintenance

**KEY FEATURES & BENEFITS**

- **Wide band coverage with robust RF performance**
- **TE RF engineering competence can enable optimal performance**
- **Help to enable lower latency and higher peak data rate connection of 5G, and LPWAN communication**
- **Offer system design flexibility**
- **Customization, miniaturization and complex multiple antennas assemblies can be readily available through TE’s comprehensive design approach and guidance in implementation**
- **Quick time to market**
- **Available with multiple mounting types**
- **Ready to use with no tuning**

**TE’S ANTENNAS FOR 5G, NB-IOT AND LTE-M**

Offering cellular Internet of Things (IoT) devices frequency bands ranging from 600 MHz to 6 GHz.