MACOM is Uniquely Positioned to Deliver RF, mmWave to Light Semiconductor Solutions for 4G and 5G

**Key Trends:**
- Higher Frequency Bands
- More Spectrum
- Massive MIMO
- Denser Network
- Beam Forming
- Spectral Efficiency
- Energy Efficiency
- Optical Fronthaul & Backhaul

**Key Technologies/Capabilities:**
- Phase Shifters
- Smart Antenna
- mmWave
- GaN
- GaAs
- BiCMOS SiGe
- High Frequency Packaging
- Module Integration
- CMOS

**Key Products:**
- GaN Transistors & Amplifiers
- 30 GHz Power Amplifiers
- E-Band (71-86 GHz) Surface Mount Module
- W-Band (up to 110 GHz) Multipliers, Switches & Amplifiers
- Phased Array Panel for Smart Antennas
- Integrated Smart Chip sets 6 – 42 GHz
- CPRI Optical Components
- PMD, Laser Driver, Laser

**Small Signal, RF Power and Optical Solutions**