

# General Specifications of UHF RFID Tags

<b>Frequency Range:</b>	860-960 MHz (Region-dependent: 865-868 MHz in EU, 902-928 MHz in US)
<b>Communication Standard:</b>	ISO/IEC 18000-6C / EPCglobal Class 1 Gen 2
<b>Modulation:</b>	ASK (Amplitude Shift Keying), sometimes PSK
<b>Encoding:</b>	PIE, FM0, Miller encoding
<b>Memory:</b>	96-512 bits EPC memory, 32-512 bits user memory, 32-64 bits TID (tag ID)
<b>Read Range:</b>	Typically 3-12 meters (depending on reader power and tag antenna design)
<b>Write Range:</b>	Typically up to 1-2 meters
<b>Tag Type:</b>	Passive (no battery), some semi-passive options available
<b>Data Retention:</b>	10+ years
<b>Write Endurance:</b>	100,000 cycles (EEPROM)
<b>Operating Temperature:</b>	-40°C to +85°C
<b>Protection:</b>	IP65-IP68 for hard tags (waterproof, dustproof, rugged options available)
<b>Mounting Options:</b>	Adhesive, screws, rivets, cable ties, or embedded in plastic