# GAO 2.4GHz Active Tag Reading Record Structure

## 1) General Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| **Tag_ID** | | | | | | | | **Status** |

**Tag_ID:** Tag ID (8 bytes).

**Status:** Status of the Tag (1 byte). See the figure below

1 bit

| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|---|
| **Battery** | | | | **Tag_Type** | | | |

**Battery:**Battery Power Level (1 bit). 1, Battery Sufficient; 0, Battery Insufficient

**Tag_Type:** Type of the Tag (4 bits). See the table below

| | |
|---|---|
| Configurable Card Tag | 0000 |
| Configurable Strip Tag | 0001 |
| Temperature Tag | 0010 |
| Vibration Tag | 0011 |
| Wristband Tag | 0101 |
| Beaconing Tag | 0110 |
| Key-fob Tag | 0100 |

## 2) Temperature Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Tag_ID** | | | | | | **A** | **N** | **B** | **Status** |

**Tag_ID:** Tag ID (6 bytes).

**A:** Temperature Integer Part (1 byte).

**N:** Temperature Sign (4 bits). 0000, positive; 0001, negative

**B:** Temperature Decimal Fraction Part (4 bits).

**Status:** Same as in section 1

Examples: See the table below

| **byte**[6] | **byte**[7] | **Temperature Value** |
|---|---|---|
| 0x20 | 0x00 | 32 ℃ |
| 0x20 | 0x10 | -32 ℃ |
| 0x20 | 0x01 | 32.1 ℃ |
| 0x20 | 0x11 | -32.1 ℃ |

### 3) Vibration Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| **TAG_ID** | | | | | | | | **Status** |

**Tag_ID:** Tag ID (8 bytes).

**Status:** Status of the Tag (1 byte). See the figure below

1 bit

| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|---|
| **Battery** | **Vibration** | | | **Tag_Type** | | | |

**Battery:** Battery Power Level (1 bit). 1, Battery Sufficient; 0, Battery Insufficient

**Vibration:** Vibration Signal (1 bit). 1, Vibrating; 0, Not Vibrating

**Tag_Type:** Type of the Tag (4 bits). 0011 for Vibration Tags

### 4) Wristband Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| **TAG_ID** | | | | | | | | **Status** |

**Tag_ID:** Tag ID (8 bytes).

**Status:** Status of the Tag (1 byte). See the figure below

1 bit

| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|---|
| **Battery** | | **Call** | **Buckle** | **Tag_Type** | | | |

**Battery:**Battery Power Level (1 bit). 1, Battery Sufficient; 0, Battery Insufficient

**Call:** Call Button Status (1 bit). 1, Button Pressed; 0, Button Not Pressed

**Buckle:** Buckle Status (1 bit). 1, Open; 0, Connected

**Tag_Type:** Type of the Tag (4 bits). 0101 for Wristband Tags

## 5) Beaconing Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| **Tag_ID** | | | | | | | | **Status** |

**Tag_ID:** Tag ID (8 bytes).

**Status:** Status of the Tag (1 byte). See the figure below

1 bit

| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|---|
| **Battery** | | | **Mount** | **Tag_Type** | | | |

**Battery:** Battery Power Level (1 bit). 1, Battery Sufficient; 0, Battery Insufficient

**Mount:** Mount Status of the Tag (1 bit). 1, Un-Mounted; 0, Mounted

**Tag_Type:** Type of the Tag (4 bits). 0110 for Beaconing Tags

## 6) Key-fob Tag Reading Record Structure (9 bytes)

1 byte

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| **Tag_ID** | | | | | | | | **Status** |

**Tag_ID:** Tag ID (8 bytes).

**Status:** Status of the Tag (1 byte). See the figure below

1 bit

| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|---|
| **Battery** | | **Button** | | **Tag_Type** | | | |

**Battery:** Battery Power Level (1 bit). 1, Battery Sufficient; 0, Battery Insufficient

**Button:** Button Status of the Tag (1 bit). 1, Pressed; 0, Not Pressed

**Tag_Type:** Type of the Tag (4 bits). 0100 for Key-fob Tags