

Rapidise offers distinct Bodycam variants, including a general "Rapidise Bodycam" and a more advanced "LTE Bodycam" which is referenced as part of the "RISE C1 series."

Here are the detailed specifications and features for the Bodycam variants described in the sources:

## 1. Rapidise Bodycam (General Model)

The Rapidise Bodycam is described as delivering sharp, **high-definition video and clear audio recording**, even in low-light or dark conditions. It features a rugged design and enhanced night vision, ensuring reliable, round-the-clock video and audio documentation.

### Key Specifications:

| Specification Category | Detail   | Source(s) |
|------------------------|--|-----------|
| Processor              | Arm Cortex A7 @ 1GHz   |           |
| Cache                  | 32KB I-Cache, 32KB D-Cache, 128KB L2 Cache   |           |
| Operating System       | Supports Android application   |           |
| Dimensions             | 135 x 70 x 35 (L x W x H)  |           |
| Encoding               | Video Encoding H.265 + (compatible H.265/H.264) High Profile, JPEG snapshot  |           |
| Network Protocols      | TCP/IP, HTTP, DHCP, DNS, DDNS, PPPoE, SMTP, NTP, HTTPs   |           |
| Connectivity           | Recording and Streaming via Wi-Fi  |           |
| Processing Support     | Neon & FPU Support   |           |
| Use Cases              | Ideal for law enforcement, private security, field operations, Police, Military Solder Surveillance, Security Guards, and Government Authorities |           |

## 2. LTE Bodycam / RISE C1 Body Camera

The **LTE Bodycam** is a rugged, body-worn camera designed for field surveillance, security, and law enforcement applications, requiring reliable, mobile edge intelligence. It features a high IP rating and an optional USB mini-cam. The "Body

Camera" is also listed under the **RISE C1 Series Module Roadmap** with specific computational details.

**Detailed Technical Specifications (LTE Bodycam):**

| Specification Category | Detail   | Source(s) |
|------------------------|--|-----------|
| Platform               | Qualcomm QCS5430   |           |
| CPU                    | Qualcomm® Kryo 670 CPU   |           |
| AI Engine              | 6 Cores, GPU: Qualcomm® Adreno 642L, Hexagon Processor: Qualcomm® Hexagon 770, Fused AI Accelerator Architecture |           |
| Memory/Storage         | 4GB LPDDR5 pop package, 16GB Flash Memory  |           |
| Operating System       | Android  |           |
| Camera                 | <b>2MP Main Camera + 2MP Optional USB Mini Camera</b>  |           |
| Display                | 2" MIPI-DSI Display  |           |
| Functionalities        | Recording, Streaming of Video & Audio, GPS, 2-way audio  |           |
| Communication          | LTE CAT 6 (M.2 based) interfaced via USB3.0, and BLE 5.0   |           |
| Positioning            | GPS Enabled for accurate positioning   |           |
| Battery/Power          | <b>4000 mAH battery</b> (long battery life), supports Qualcomm® Quick Charge 5 technology                        |           |
| Input Voltage          | SOM Input Voltage: 3.4V ~ 4.5V   |           |
| IP Rating              | <b>IP68 Rated</b> ; noted elsewhere as IP67 Rating   |           |
| Mechanical Spec (SOM)  | 85mm x 57mm x 30mm (Excluding Antenna)   |           |

**Computational Specifications (RISE C1 Series Body Camera):**

The "Body Camera" is listed with the following computational specifications as part of the RISE C1 series, which is focused on edge computing and surveillance applications:

| Computational Component | Detail  | Source(s) |
|-------------------------|---------|-----------|
| CPU                     | 8 Core  |           |
| DSP                     | Hexagon |           |

|     |             |  |
|-----|-------------|--|
| NPU | 1.1 TOPS    |  |
| GPU | 950 MHz     |  |
| ISP | Dual(16+24) |  |

### 3. Proposed Advanced Bodycam Features (AI and Hardware Activation)

Rapidise has developed and proposed solutions to enhance bodycams, specifically addressing accountability and ensuring critical events are recorded even if manual activation is missed.

#### AI-Based Automatic Activation (Solution 1)

This solution utilizes **onboard AI algorithms** that run continuously while the device is in a Low-Power (Sleep) Mode, triggering full-resolution recording upon detection of high-risk events. This process ensures proactive and intelligent recording without officer intervention and reduces device heating, saving the battery.

- **Triggers:** The algorithms include **Gun/Gunshot Detection** (detecting visual cues or acoustic signatures), **Knife Detection** (visual processing), **Violence Detection**, and **Help/Distress Detection** (recognizing specific keywords or tonal patterns like "Help" or "Stop").
- **Recording Process:** When a trigger is detected, the bodycam switches from sleep/time-lapse mode to full-resolution recording. Crucially, a **pre-buffered duration (e.g., last 30–60 seconds) is saved** to preserve the context leading up to the trigger event.
- **Benefits:** This approach requires no hardware modification, enhances evidentiary quality, and offers strong differentiation in the competitive market.

#### Hardware-Based Trigger Activation (Solution 2)

This approach ensures hands-free activation by integrating a custom-developed **Reed Switch** into the gun holsters.

- **Mechanism:** The Reed Switch is embedded in or affixed to the push-button strap used to secure the firearm. When the strap is released to draw the weapon, the switch is triggered, signaling the body camera to instantly start full-resolution recording.

- **Connection:** The system can use either **wired or wireless (BLE/RF)** communication. Wireless connectivity allows for easy retrofit into current setups.
- **Context Preservation:** Similar to the AI solution, a **pre-buffered clip (e.g., 30–60 seconds)** of the footage before the event is saved to preserve context.
- **Dual-Layer Safety:** This hardware activation can complement the AI-based detection, creating a hybrid system that captures footage based on both environmental triggers (like shouting) and direct firearm access.

These systems operate in tandem with a Low-Power (Sleep) Mode, where the device records in time-lapse mode to preserve battery until a trigger is activated.

The multiple Bodycam offerings by Rapidise, ranging from the general *Rapidise Bodycam* to the advanced *LTE Bodycam* (QCS5430 platform), reflect a progression in capability, much like a software development timeline where an initial working model (Arm Cortex A7) is succeeded by a more powerful, specialized version (Qualcomm QCS5430) capable of running advanced AI algorithms directly on the device—**transforming the basic recorder into an intelligent, event-aware security tool.**