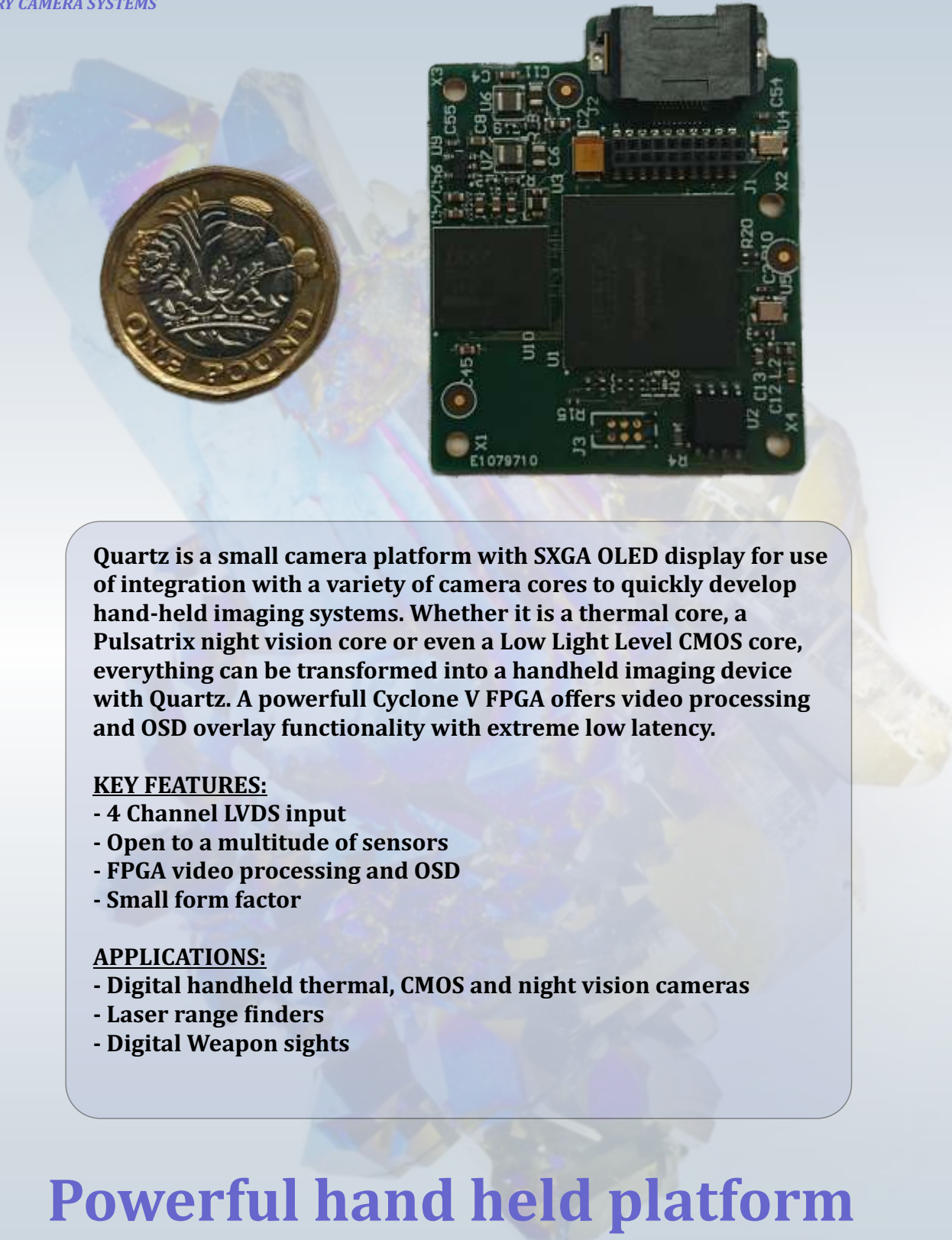# QUARTZ

Quartz is a small camera platform with SXGA OLED display for use of integration with a variety of camera cores to quickly develop hand-held imaging systems. Whether it is a thermal core, a Pulsatrix night vision core or even a Low Light Level CMOS core, everything can be transformed into a handheld imaging device with Quartz. A powerfull Cyclone V FPGA offers video processing and OSD overlay functionality with extreme low latency.

**KEY FEATURES:**
- 4 Channel LVDS input
- Open to a multitude of sensors
- FPGA video processing and OSD
- Small form factor

**APPLICATIONS:**
- Digital handheld thermal, CMOS and night vision cameras
- Laser range finders
- Digital Weapon sights

# Powerful hand held platform
## *Preliminary specifications*

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# Quartz

**System basics**
| | |
|---|---|
| Type | Multi sensor OEM board camera platform |
| Sensors | LWIR, CMOS, ICMOS |

**Input and output**
| | |
|---|---|
| Input | 4CH LVDS |
| Output | eMagin SXGA-096 OLED-display |

**Features**
| | |
|---|---|
| Image processing | FPGA (Cyclone V) based digital enhancement, overlays, white balance, gamma correction with attached LPDDR2 memory for framerate adjustment and temporal or spatial filtering. |
| OSD | On screen display, configurable with user designed graphics. Multiple fonts present, including Korean, Chinese, Japanese, Hebrew, etc. |
| User button interface | 4 pushbuttons for power control and menu interfacing. Selectable fonts and programmable icons are available in built-in memory to facilitate intuitive interfacing. |
| ShadowBoost™ | Extended dynamic range for CMOS and ICMOS |

**Dimensions**
| | |
|---|---|
| Main board dimensions | Approx. 45x35, see mechanical outline. |
| OLED board dimensions | Customizable, approx. 700mm² required including mounting holes. Actual size depends on required shape. |

**Power**
| | |
|---|---|
| Input voltage | 2.5V .. 12V DC |

**Environmental parameters**
| | |
|---|---|
| Operating and storage temperature | -30°C to +75°C, -40°C to +85°C (Without ICMOS) -20°C to +60°C, -35°C to +65°C (Including ICMOS) |
| Shock | MILSPEC design |
| Vibrations | MILSPEC design |

*Specifications are subject to change without notice*