



VOx Imager

Shock Resistant Low Power
IR Video Core



General Description

VOx Imager (VOxI) is SCD's revolutionary low SWaP-C (Size, Weight, Power and Cost) 640 x 512 Uncooled LWIR video core.

VOxI is specially designed to be used in Thermal Weapon Sights, in miniature payloads and in other devices where high performance (<35mK NETD) is critical.

The low SWaP features of this video core are based on SCD's TECless ceramic package with a 17 μ m pitch VOx detector using SCD's advanced digital ROIC and electronics.

Applications

- Goggles
- Rifle sights
- Unattended Sensors
- Miniature Payload
- Airborne EVS
- Security and short-mid range surveillance
- Fire Fighters

Main Features

- Detector – VOx Microbolometer, 17 μ m, 640 x 480 resolution
- Exceptional image quality – NETD < 35mK @ F/1,30Hz
- Low Power Consumption – < 1.2 Watt
- Main digital video output – Glueless OLED /BT.656 / Parallel LVCMOS 8/14 bit
- Second digital video output – Camera Link: simultaneously with the Main or Configurable as Video input
- TEC-less and Shutter-less operation
- Time to Image – < 3 seconds
- Light-weight – 43 grams
- Small form factor – 31 x 31 x 29.7mm





Typical Performance

Parameter	Value
System	Uncooled LWIR Thermal Imager
Detector format	VGA, 640 x 480 pixel count
Detector pitch	17 μm
Detector material	VOx Microbolometer
Detector package	Ceramic
Spectral range	8 – 14 μm
Sensitivity (30 Hz, f/1)	< 35 mK
Dynamic range	< 50K @ F#1
Frame rate	25/30 Hz (<9Hz and 50/60Hz versions available)
Time to image	< 3 sec
Latency	Sub frame
Supply Voltage	5V
Power consumption	< 1.2 Watt
TEC-Less operation	Yes
Shutter-Less operation	Yes
Video output 1 (LVCMOS)	8/14 bit Parallel, Glueless VGA AMOLED, BT.656
Video output 2 (LVDS)	Camera Link, simultaneously with the parallel output
Digital zoom	X2, X4
Polarity invert	Yes
Image flip	Horizontal and Vertical
Discrete button inputs	6
Overlay graphics	Text and Bitmap
Operation temperature	-40°C to +71°C
Storage temperature	-40°C to +85°C
Shock	500G @ 0.5msec, 500 shocks per axis and direction ½ sine
Size	31 x 31 x 29.7 mm
Weight	43 grams

Specifications are subject to change without notice



SCD.USA Infrared/ Colorado
T (321) 652 8056 / www.scdusa-ir.com
contactus@scdusa.com

SCD Israel / Haifa
T (972) 4 9902535 / www.scd.co.il
marketing@scd.co.il