

# DATA SHEET

## VISTA FREEZER

The Vista Freezer is a battery powered camera and sensor device that has the ability to capture the image of the CDE's display as well as monitor light, temperature, humidity and movement. Vista has internal nonvolatile memory to store the images and sensor data. Vista can transmit these images and data to the cloud over BLE.

The Vista Freezer is designed to be used for planogram compliance, stock monitoring and CDE tracking, maintenance, and management.



Hardware Revision: EM-IN-023V5R1











## **FEATURES**

#### HARDWARE SPECIFICATION

Power supply	Internal 3.6V/3500mAh (LiSOCl2) primary battery
Size	170 mm L X 51mm W X 34.5 mm H
Temperature Range	-15°C to 45°C operating -20°C to 80°C storage
LED	Two LED's for status, identification, connection, and error indication
Storage	32-Mbit data flash

### WIRELESS CONNECTIVITY

#### Bluetooth

Bluetooth Type	Bluetooth Low Energy
Bluetooth Sensitivity	-93 dBm sensitivity in Bluetooth® low energy mode
Bluetooth Max Power Output	+4 dBm
Bluetooth Antenna	Onboard PCB antenna
Frequency Support	2400Mhz to 2483MHz
Bluetooth Data Rate	1Mbps



WiFi	
Protocols	802.11 b/g/n (HT20)
Wifi Max Power Output	802.11 b: +20 dBm
Wifi Antenna	Onboard PCB antenna
Frequency Support	(2400 MHz to 2483.5 MHz)
Wifi Data Rate	11 Mbps
	ECOPACK® RoHS and "green" compliant
<b>MOVEMEN</b>	TS
Accelerometer	$\pm 2g/\pm 4g/\pm 8g/\pm 16g$ dynamically selectable
	Full-scale 6D/4D orientation detection
	Free-fall detection
	Motion detection
	10000g high-shock survivability
	ECOPACK® RoHS and "green" compliant
Gyroscope	Three selectable full scale of ±245/±500/±2000 dps sensitivity 8.75/17.50/70.00 mdps/digit sensitivity change vs. temperature ±2
Magnetometer (optional)	$\pm 4/$ $\pm 8/$ $\pm 12/$ $\pm 16$ gauss selectable magnetic full-scale
	Continuous and single conversion mode
	16-bit data output
	Interrupt generator
MCU	
MCU	CPU - 32-Bit ARM® Cortex™ M0 32-Bit CPU memory - 256KB embedded flash - 32KBRAM System peripherals - 3 x 16/24-Bit timers with counter mode encryption - 128-Bit AES ECB/CCM/AAR co-processor

ARM Cortex-M4MCU capable of off-loading the main ARM

Cortex-M0 Core: ARM® 32-bit

NOR and NAND memories

FIFOs and burst support

Cortex®-M4 CPU with FPU memories 1256+4 KB of SRAM including 64-KB of

CCM (core coupled memory) data RAM Flexible static memory controller supporting compact flash, SRAM, PSRAM,

DMA: 16-stream DMA controller with

14-bit parallel camera interface up to 54

AMBIENT SENSORS		
Ambient Light	Resolution: 16-bits ADC	
	Wide dynamic range 1:4,200,000	
	Integrated noise reduction: 50/60Hz Close to human eye response with excellent IR/UV rejection	
	Lux range (max): 64000 lux	
	Counts/Lux (max): 65 counts	
	Dark ADC Code @ Ev=0: Lux (max) 5 counts	
Humidity	± 4.5% RH @ 20 to 80%	
	RH 0 to 100% RH humidity	
	Range integrated on-chip	
	Heater factory calibrated	
Temperature Sensor	±0.5 °C accuracy (maximum) @ -40 to +125 °C	
	Factory calibrated	
<b>CAMERA</b>		
5.0 MegaPixel	Array size: UXGA 1600 x 1200	
	Temperature range stable image: 0°C to 50°C	
	Output Formats (8-bit): YUV(422/420)/YCbCr422 RGB565/555 8-bit compressed data 8-/10-bit raw RGB data	
	Lens Size 1/4"	
	Maximum Frame Rate	
	UXGA/SXGA 15 fps SVGA 30 fps CIF 60 fps	
	Sensitivity 0.6 V/lux-sec	
	S/N ratio 40 dB	
	Dynamic range 50 dB	
	Scan mode progressive	
	Maximum exposure interval 1247 x tROW pixel size 2.2 μm x 2.2 μm	
	Image area 3590 μm x 2684 μm	
<b>BATTERY</b>		
Required	Type Lithium Metal Cell (Li-FeSx Cell)	

The device is not user servicable. Please contact CoolR Group if the device requires repair.

2700mAH)

Replacement



Co-MCU

Mbytes/s

2xFR6 batteries (Each battery 1.5v -

Battery is easily replaceable by user