

# Operational Description

FCC ID: 2ARZOCM2018V1

IC:24629-CM2018

Model: SmartFlow

CoolerManager™ is a state of the art IOT device specifically designed for beer or gas volume measurement, REALTIME communication and data transfer with CLOUD servers via GSM or WIFI.

CoolerManager controller is built to work in hard and extreme conditions, withstanding heat, moisture, dust and grease build up.

CoolerManager™ incorporate latest technologies to seamlessly integrate with GSM and WIFI technologies and protocols.

Bespoke original design with aim to be used in the beer industry.

Sensors for monitoring flow, temperature and CO<sub>2</sub>.

Our digital support team continuously works on innovations and required automations.

Real-time information using online state of the art reporting tools.

Created to simplify, enhance and provide full insights on the flow of beverages, liquids and gases to industry and consumers.

## GPRS Operating Description

Product	GPRS Function
Frequency Range	GPRS 850: 824 ~ 849 MHz(TX) 869 ~ 894 MHz (Rx) GPRS 1900: 1850 ~ 1910 MHz(TX) 1930 ~ 1990 MHz(Rx)
Modulation	GMSK for GPRS
Power Class	GPRS: 12
Bit Rate of Transmitter	GPRS:115K/s
Antenna Type	External Antenna
Antenna Gain	GPRS 850: 1.52 dBi GPRS 1900: 1.57 dBi
Channel Spacing	200KHz

## Bluetooth Operating Description

Product	Bluetooth3.0
Frequency Range	2402-2480 MHz
Modulation Technique:	GFSK(1Mbps)
Antenna Type	Ceramic antenna
Antenna Gain	0.5 dBi
Bit Rate of Transmitter	1Mbps
Channel Number	79
Channel Spacing	1 MHz

## 2.4G WIFI Operating Description

Product	2.4G WIFI Function
Frequency Range	IEEE 802.11b /g /n(20MHz):2412-2462 MHz
Modulation	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n(20MHz):65/58.5/52/39/26/19.5/13/6.5 Mbps
Antenna Type	PCB Antenna
Antenna Gain	2 dBi
Channel Number	11
Channel Spacing	5 MHz