

MGC3140

Emerald EVK Hardware References

Overview

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1. Overview

The Emerald development kit is a complete MGC3140 reference system consisting of three individual PCBs:

- MGC3140 controller
- I²C to USB bridge
- 4-layer reference Hillstar sensor

The development kit can be connected to a PC via a USB cable and used for evaluation of the MGC3140 IC and GestIC technology. During the customer's design-in process the individual boards can be combined according to the customer need.

The MGC3140 Hardware References package contains reference PCB layouts for the MGC3140 controller, a collection of Electrode reference designs, I²C to USB bridge and Hillstar sensor.

1.1 Organization Of The Package

The MGC3140 Hardware Reference package contains three folders:

- 01_MGC3140 EVK 80900-A0:** MGC3140 PCB Schematics, Layout Gerber files and BoM
02_I2C to USB Bridge V2.0: I2C to USB bridge Schematics, Layout Gerber files and BoM
03_Reference Electrodes: Reference electrode Layout Gerber files and BoM

Each folder is organized as follows:

PCB_Assembly_Data: BOM, Assembly drawing

PCB_Production_Data: Gerber files of the PCB

1.2 Reference Electrodes

PCB Name	Folder	# Layer	Outlines (mm)
Electrode 30x30 2Layer	30x30 2Layer V1.0	2	49x49
Electrode 30x30 4Layer	30x30 4Layer V1.0	4	49x49
Electrode 50x30 2Layer	50x30 2Layer V1.0	2	63x47
Electrode 80x80 2Layer	80x80 2Layer V1.0	2	104x104
Electrode 95x60 2Layer	95x60 2Layer V1.0	2	120x85
Electrode 95x60 4Layer (Hillstar)	95x60 4Layer V1.0.2	4	120x85
Electrode 100x50 2Layer	100x50 2Layer V1.0	2	128x72
Electrode 100x50 4Layer	100x50 4Layer V1.0	4	128x72
Electrode 140x90 2Layer	140x90 2Layer V1.0	2	168x119
MGC3140 Controller	MGC3140 EVK PCB 80900-A0	2	-
I2C to USB Bridge	I2C to USB Bridge V2.0	2	-

