

MGC3130

Hillstar Hardware References

Overview

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1. Package Content

The MGC3130 Hillstar Hardware References contains reference PCB layouts for the MGC3130 Hillstar Development Kit and a collection of Electrode reference designs and Sensor Modules which can be used in conjunction with the Hillstar MGC3130 unit or I²C to USB bridge.

1.1 Organization of the packet:

The MGC3130 Hillstar Hardware Reference package contains 4 folders:

01_MGC3130 Unit V1.0.2:	Schematics, Layout Gerber files and BOM for the Hillstar MGC3130 unit
02_I2C to USB Bridge V1.0.2:	Schematics, Layout Gerber files and BOM for the Hillstar I ² C to USB bridge
03_Reference Electrodes:	Layout Gerber files and BOM of various reference electrodes
04_Sensor Modules:	Schematics, Layout Gerber files and BOM for various Sensor Modules with MGC3130 backside assembly

Each folder is organized as follows:

PCB_Production_Data: Gerber Files of the module

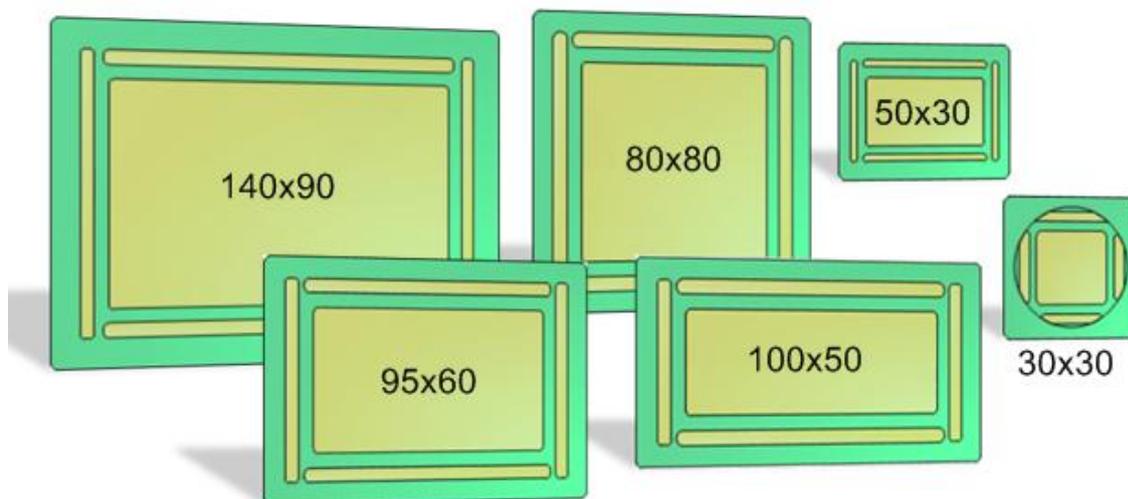
PCB_Assembly_Data: BOM, Assembly drawing; if applicable Pick-and-Place info and odb++ data)

MGC3130 Parameterization file and FW:

*.enz file containing GestICLibrary and parameterization for the module (if available)

1.2 Package content

Module Name	Version	Folder	Layer	Backside Assembly	Parameter File	Sensitive Area (mm)	Outlines (mm)
Ref. Electrode 30x30 2Layer	V1.0	30x30 2Layer V1.0	2	No	n.a.	30x30	49x49
Ref. Electrode 30x30 4Layer	V1.0	30x30 4Layer V1.0	4	No	available	30x30	49x49
Ref. Electrode 50x30 2Layer	V1.0	50x30 2Layer V1.0	2	No	n.a.	50x30	63x47
Ref. Electrode 80x80 2Layer	V1.0	80x80 2Layer V1.0	2	No	n.a.	80x80	104x104
Ref. Electrode 95x60 2Layer	V1.0	95x60 2Layer V1.0	2	No	n.a.	95x60	120x85
Ref. Electrode 95x60 4Layer	V1.0.2	95x60 4Layer V1.0.2	4	No	available	95x60	120x85
Ref. Electrode 100x50 2Layer	V1.0	100x50 2Layer V1.0	2	No	n.a.	100x50	128x72
Ref. Electrode 100x50 4Layer	V1.0	100x50 4Layer V1.0	4	No	available	100x50	128x72
Ref. Electrode 140x90 2Layer	V1.0	140x90 2Layer V1.0	2	No	n.a.	140x90	168x119
Sensor Module 30x30	V0.1	30x30 V0.1	4	Yes	available	30x30	49x49
Sensor Module 95x60	V0.2	95x60 V0.2	4	Yes	available	95x60	120x85
MGC3130 Unit	V1.0.2	01_MGC3130 Unit V1.0.2	2	n.a.	n.a.	-	-
I2C to USB Bridge	V1.0.2	02_I2C to USB Bridge V1.0.2	2	n.a.	n.a.	-	-



2. Glossary

Hillstar Development Kit

Hillstar hardware builds a complete MGC3130 reference system consisting of three individual PCBs:

- MGC3130 Unit
- I²C™ to USB Bridge
- 4 layer reference electrode with a 95x60 mm sensitive area

It can be plugged to a PC via USB cable and used for evaluation of MGC3130 chip and GestIC technology. During the customer's design-in process the individual boards can be combined according to the customers need.

Sensor module

Sensor Modules are designed to allow a rapid prototyping of Microchip's MGC3130 3D Tracking and Gesture Controller into various applications. The modules are ready-to-use and consist of a 4-layer PCB with embedded frame electrodes and MGC3130 reference circuitry. It can be connected to the Hillstar I²C to USB Bridge or an application host via a 6 pin connector including I²C, Reset and 3.3V power.

Reference Electrodes

The Hillstar development kit includes a collection of layout references (Gerber files) for electrode designs which can be copied and scaled to fit into a customer's design.