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ON Semiconductor®

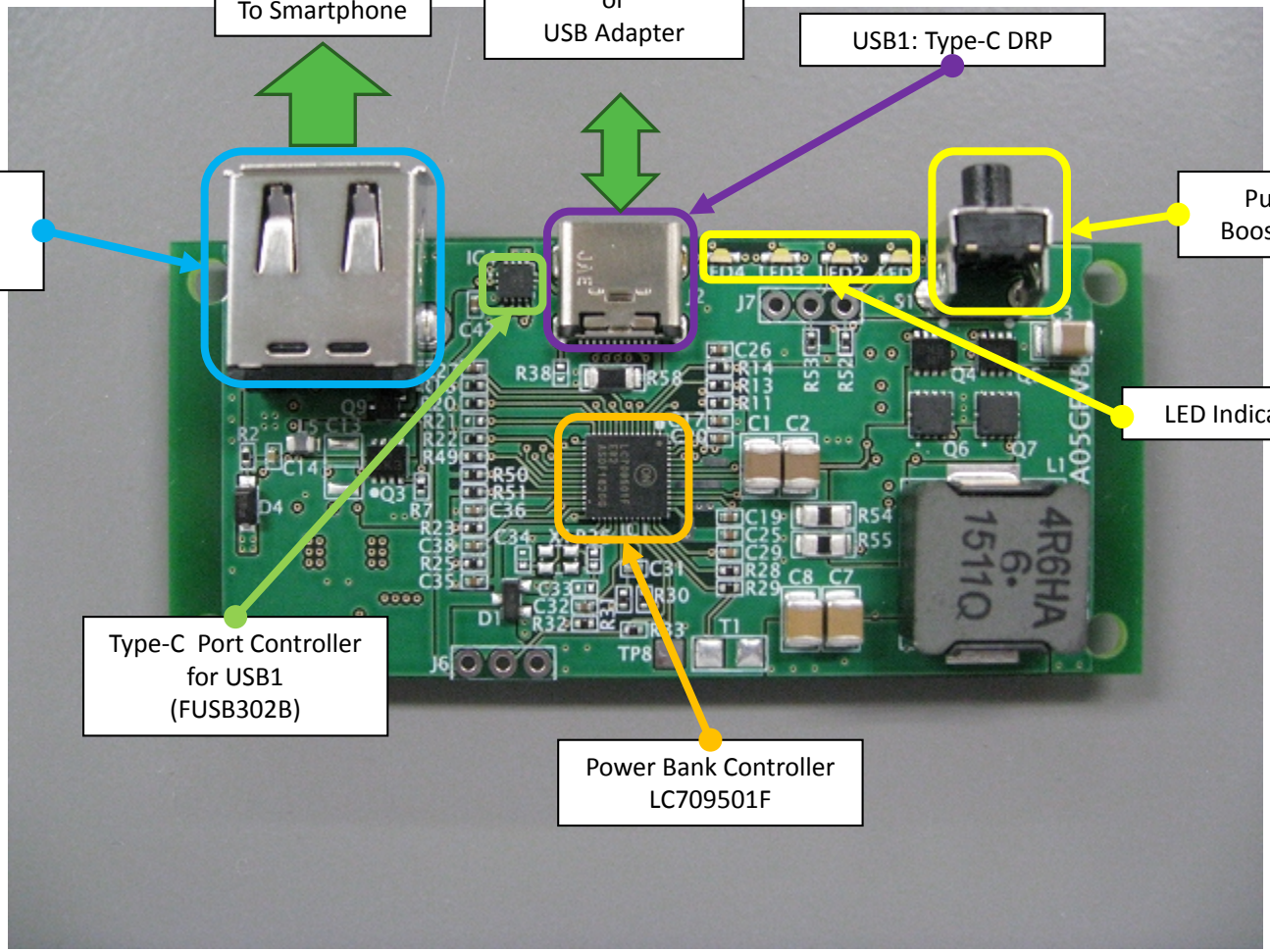
Power Bank Solution

LC709501A05GEVB Quick Guide

Mar 9, 2017

LC709501F : FW05(Type-C, Type-A) EVB Overview

LC709501A05GEVB



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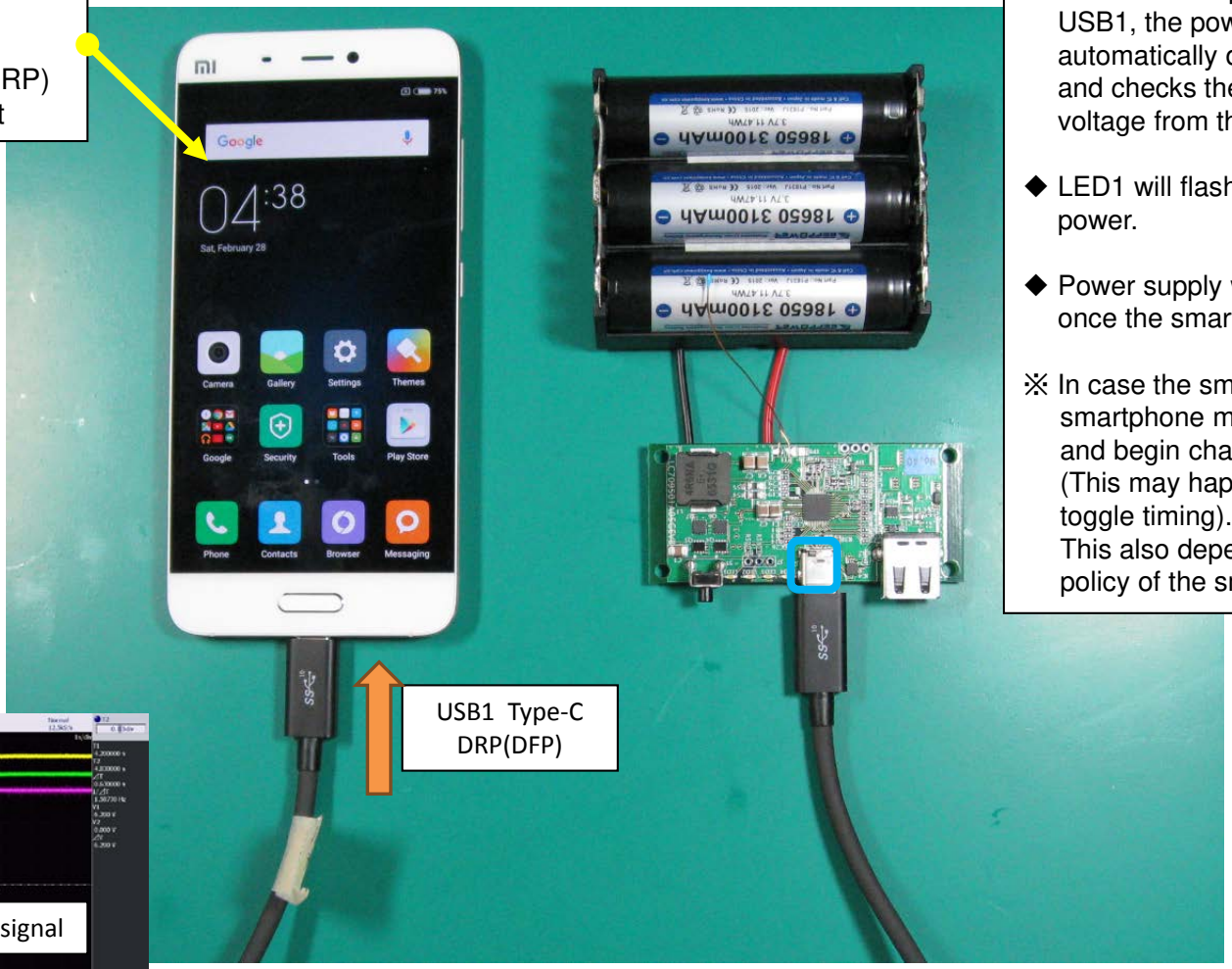
LC709501EVA05GEVB Functions

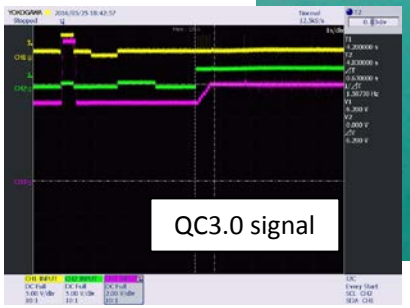
Reference software used for this EVB : LC709501F-FW05 (Ver.100)

Function		USB1 (Type-C DRP)	USB3 (Type-A)
1	USB1 QC3.0 Output	Smartphone_1	N/A
2	USB1&USB3 2-port (QC3.0 & 5V) Output	Smartphone_1	Smartphone_2
3	USB3 5V Output	N/A	Smartphone_2
4	USB1 5V Input	Adapter	N/A

LC709501EVA05GEVB connection example
Function 1 : USB1 QC3.0 Output

Smartphone
Xiaomi MI 5
Android 6.0.0
USB Type-C x1(DRP)
QC3.0 support



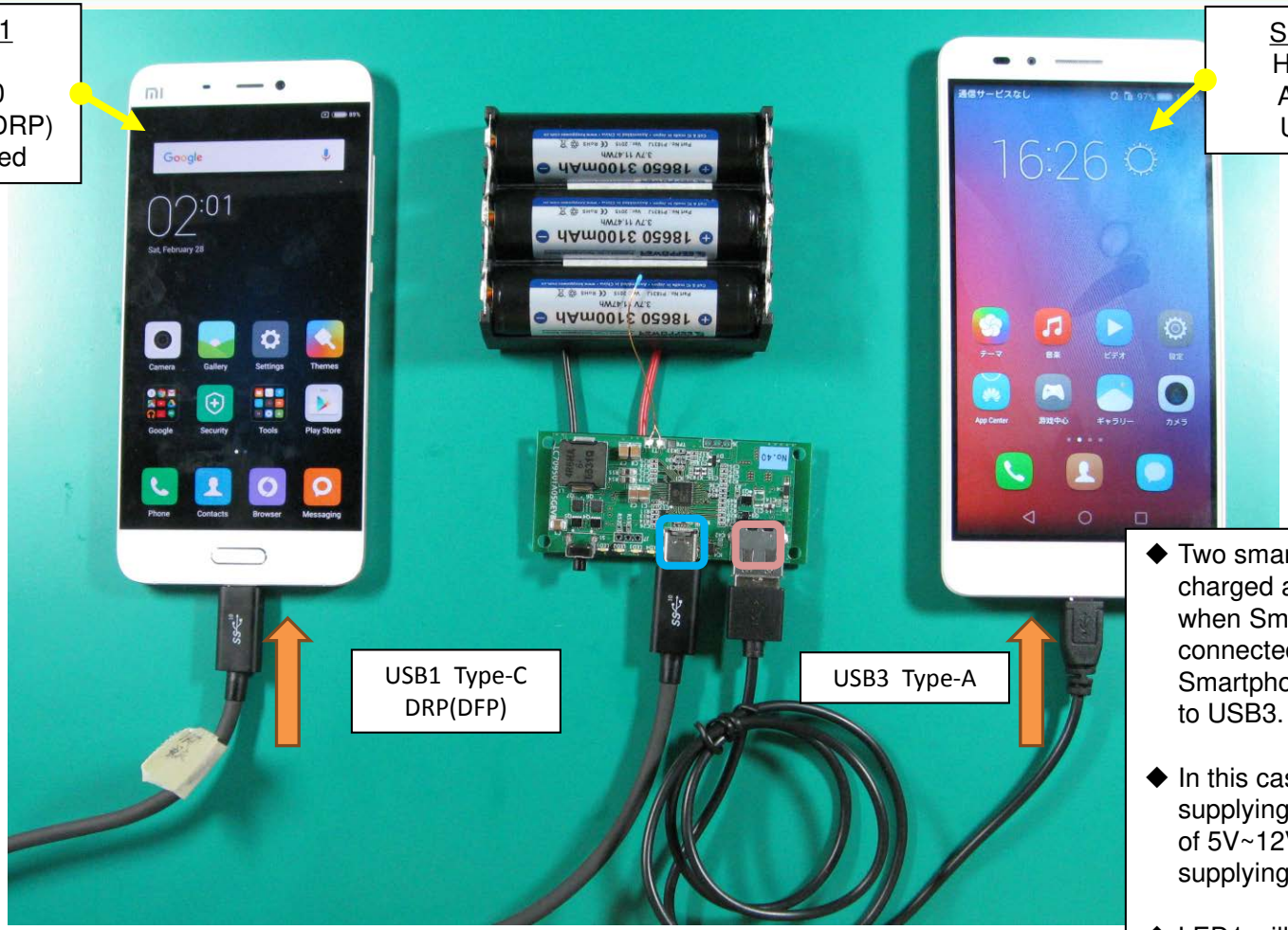


- When a smartphone is plugged into USB1, the power bank will automatically detect the smartphone and checks the suitable supply voltage from the range of 5V~12V.
- LED1 will flash while supplying power.
- Power supply will automatically stop once the smartphone is fully charged.

※ In case the smartphone is DRP type, smartphone may be treated as DFP and begin charging the power bank (This may happen by the DRP toggle timing).
This also depends on the DRP policy of the smartphone.

LC709501EVA05GEVB connection example
Function 2 : USB1 & USB3 Output

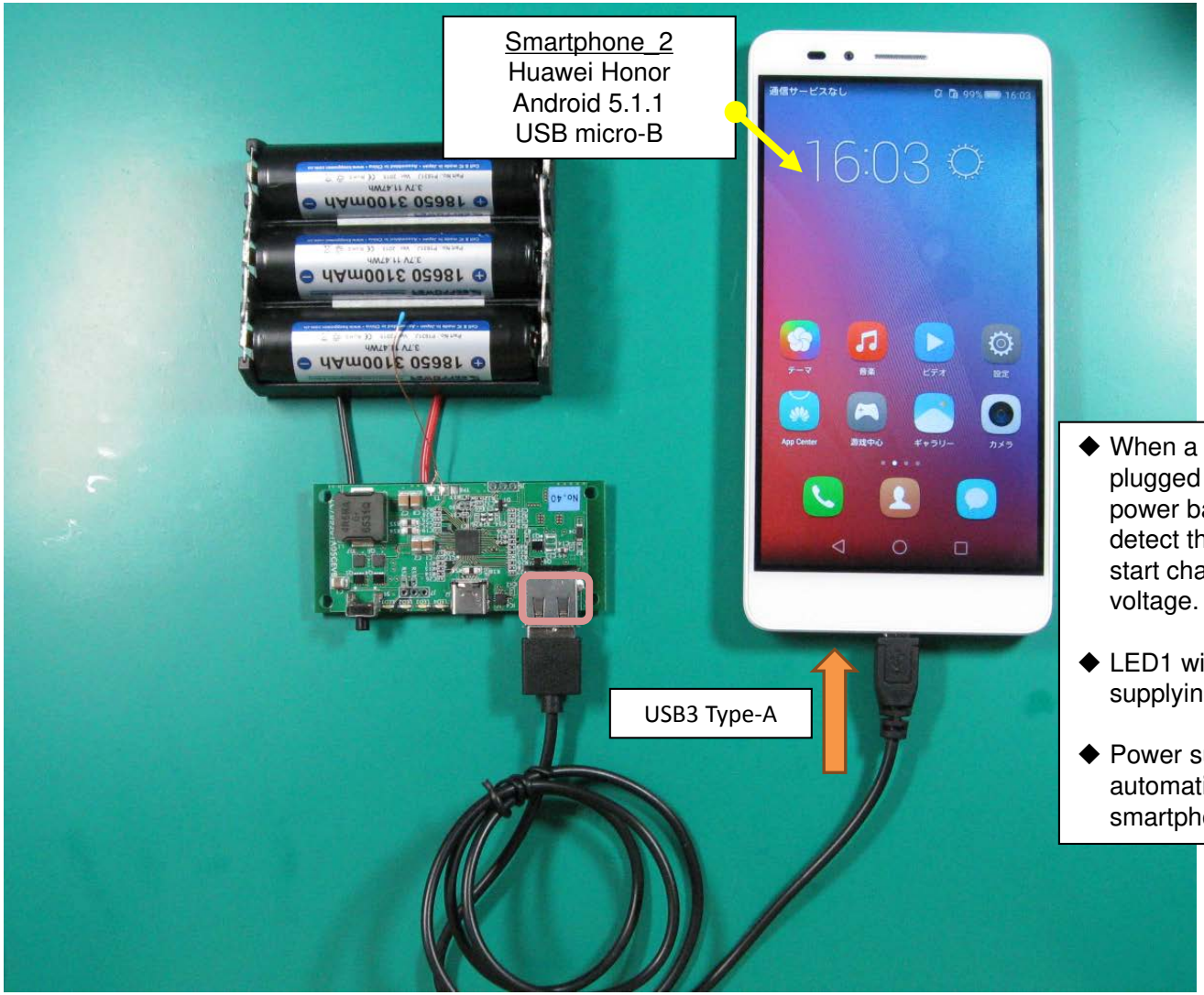
Smartphone_1
Xiaomi MI 5
Android 6.0.0
USB Type-C x1(DRP)
QC3.0 supported



Smartphone_2
Huawei Honor
Android 5.1.1
USB micro-B

- Two smartphones can be charged at the same time when Smartphone_1 is connected to USB1 and Smartphone_2 is connected to USB3.
- In this case, USB1 is supplying voltage in the range of 5V~12V and USB3 is supplying 5 fixed voltage.
- LED1 will flash while supplying power to these smartphones.

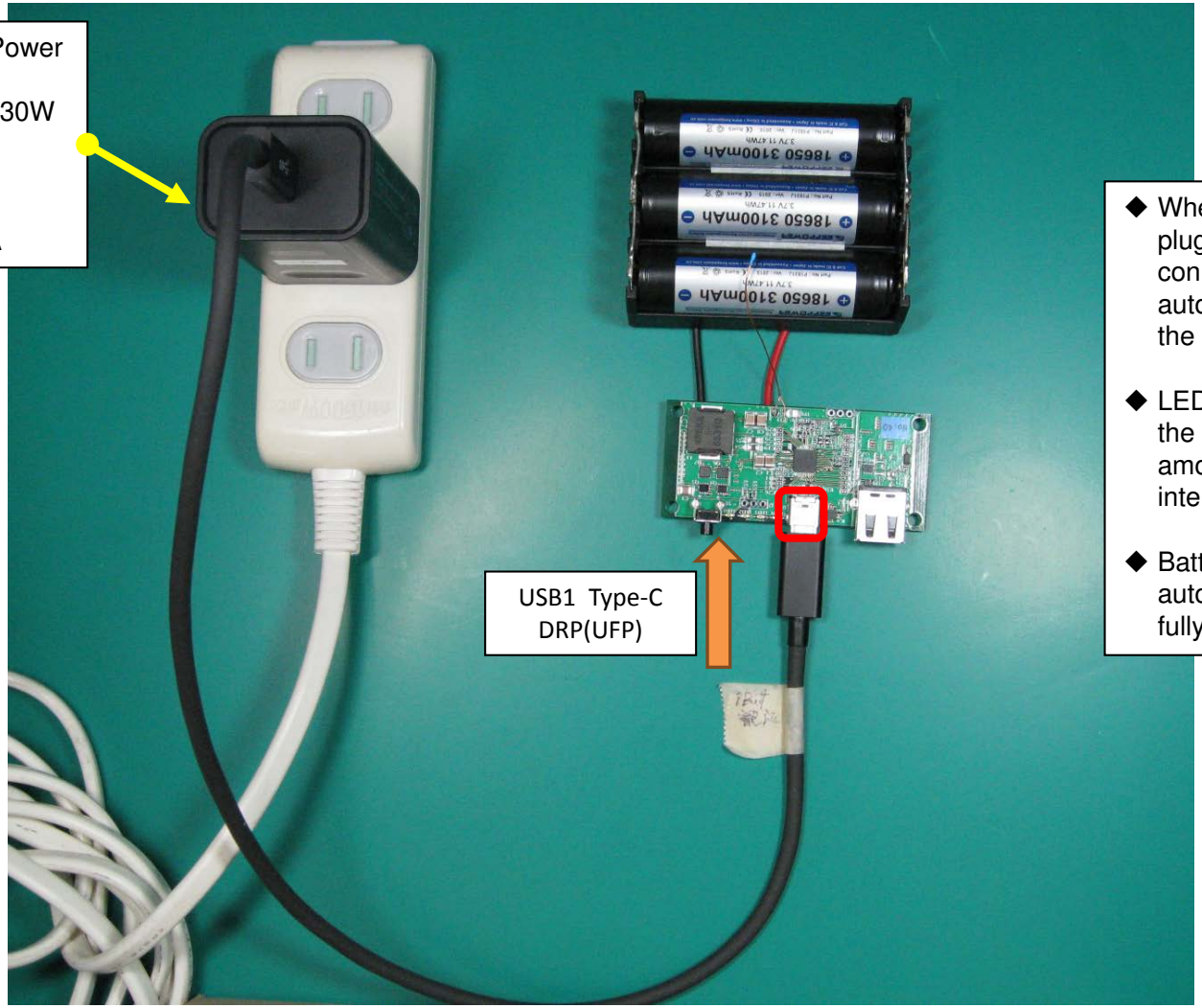
LC709501EVA05GEVB connection example
Function 3 : USB3 5V Output



- When a smartphone is plugged into an USB3, the power bank will automatically detect the connection and start charging 5V fixed voltage.
- LED1 will flash while supplying power.
- Power supply will automatically stop once the smartphone is fully charged.

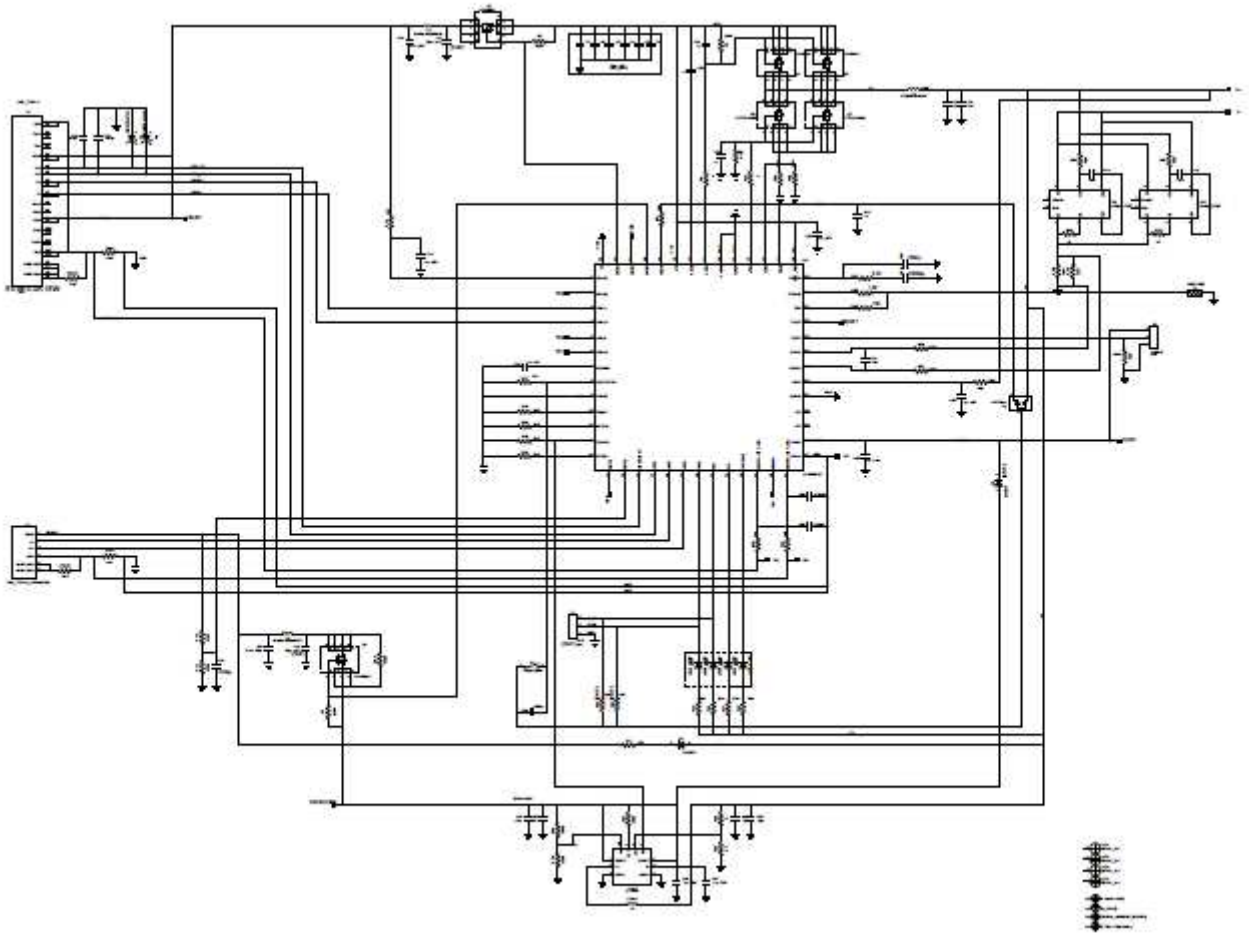
LC709501EVA05GEV connection example
Function 4 : AC-Adapter(Type C)Input

USB Type-C Power Adapter
Output: Max. 30W
5.0V/3A
9V/2A
15V/2A
20V/1.5A



- When the USB adapter is plugged into USB1 connector, it will automatically start charging the battery inside.
- LEDs will flash based on the battery remaining amount while charging the internal battery.
- Battery charging will automatically stop once it is fully charged.

LC709501EVA05GEVB Circuit Diagram



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