

# **MiiNePort W1 Schematic Design Guide**

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# MiiNePort W1 Schematic Design Guide

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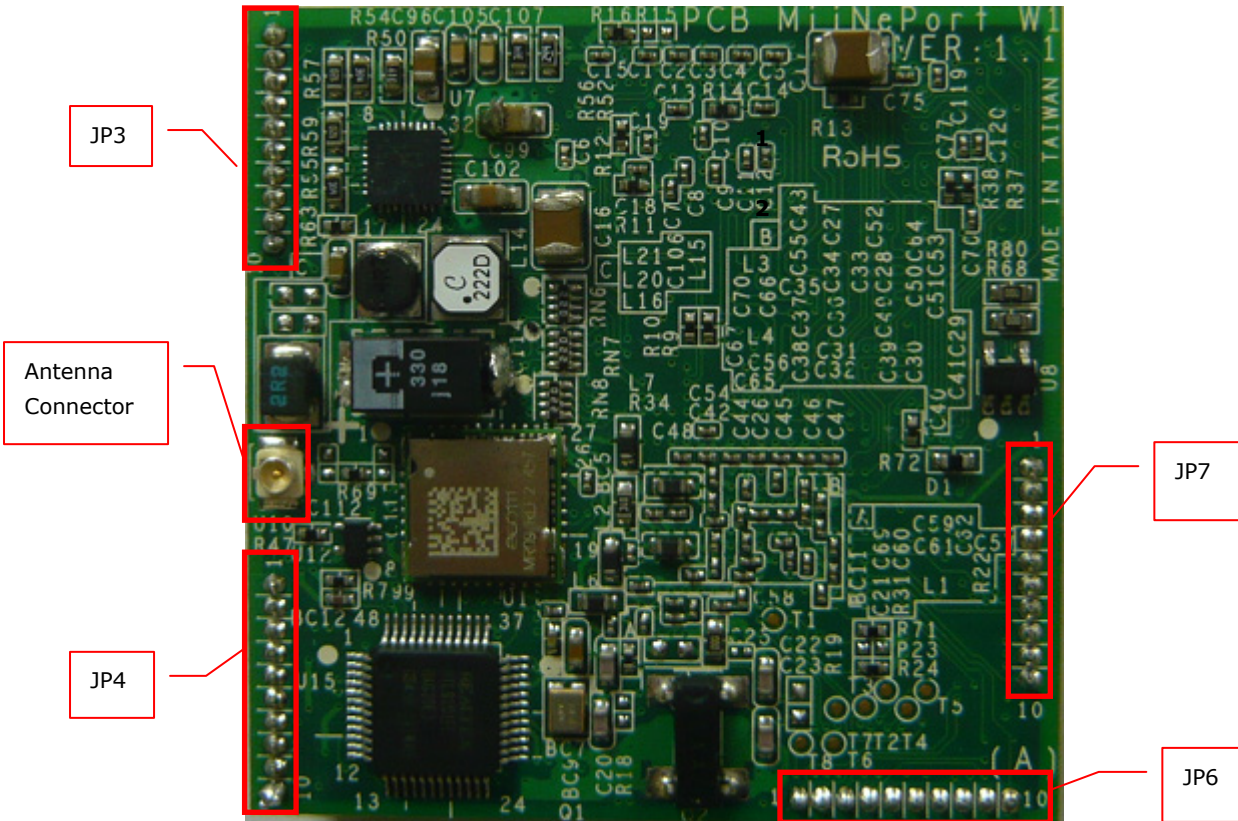
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## **The following topics are covered:**

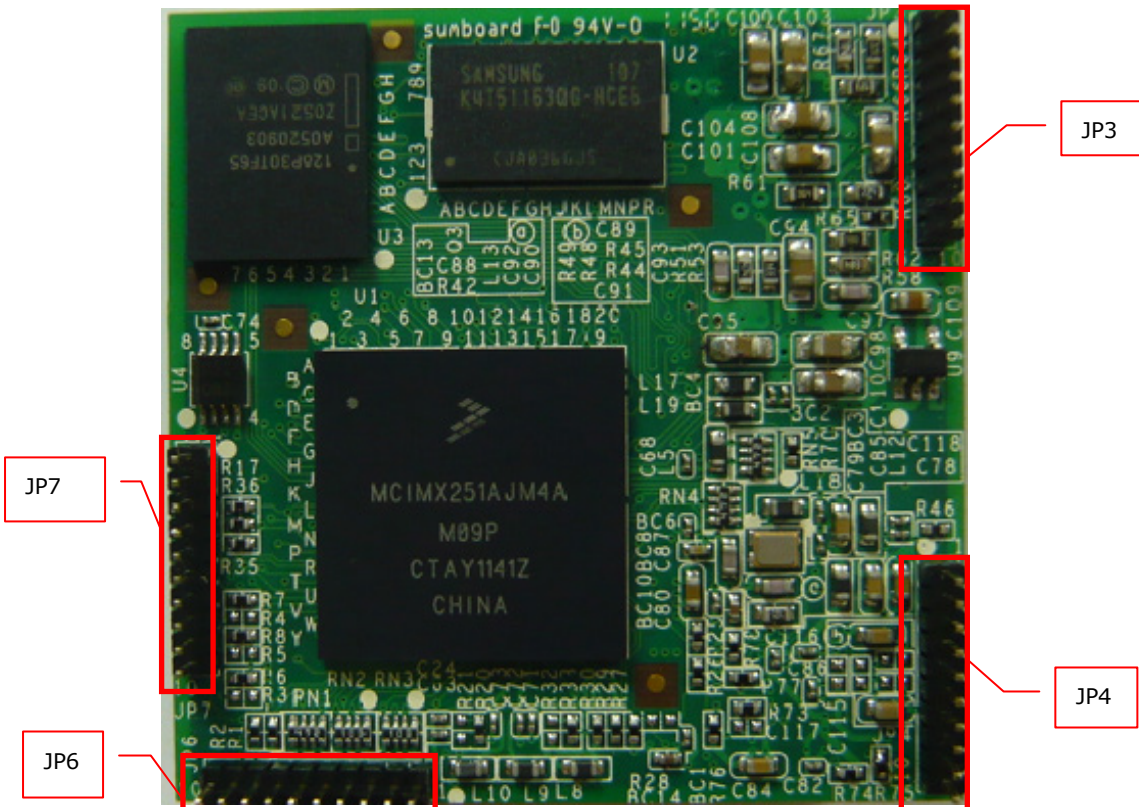
- Pin Description**
- Recommended Mating Connector**
- System Power Circuit Design**
- RS-232 Circuit Design**
- RS485-2W Data Port Circuit Design**
- RS485-4W Circuit Design**
- SW/HW Reset and Ready/Fault LEDs Circuit Design**
- WLAN Strength and Link status LEDs Circuit Design**
- DIO Circuit Design and DC Characteristics**
- Ethernet Circuit Design**

# Pin Description

- **MiNePort W1 (TOP View)**



- **MiNePort W1 (Bottom View)**



Pin	JP3	JP4	JP6	JP7
1	N.C.	Eth_10M_LED	PIO0	Data_LTXD
2	N.C.	Eth_100M_LED	PIO1	Data_LRTS
3	N.C.	Eth_Rx+	PIO2	Data_LDTR
4	READY_LED	Eth_Rx-	PIO3	Data_LRXD
5	FAULT_LED	Eth_Tx_Center	PIO4	Data_LCTS
6	HW_RESET	Eth_Tx_Center	PIO5	Data_LDSR
7	SW_RESET	Eth_Tx+	PIO6	Data_LDCD
8	WLAN_Link_LED	Eth_Tx-	PIO7	N.C.
9	Vin(3.3)	GND	Debug_LTXD	Debug_LCTS
10	Vin(3.3)	GND	Debug_LRTS	Debug_LRXD

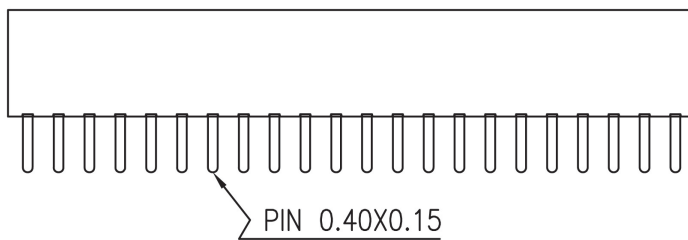
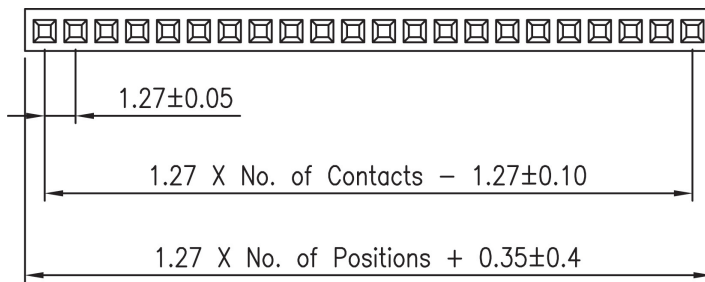
# Recommended Mating Connector

- Female pin header for JP3, JP4, JP6 & JP7 connected

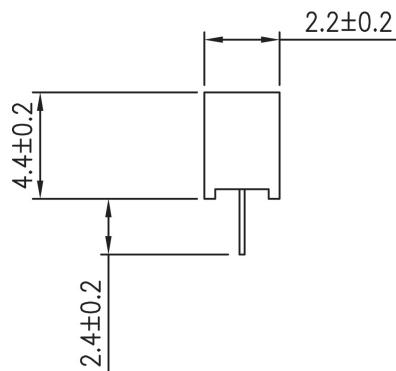
## Photo



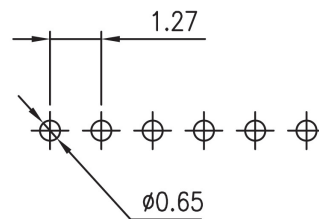
## Dimension



## Recommended P.C. Board

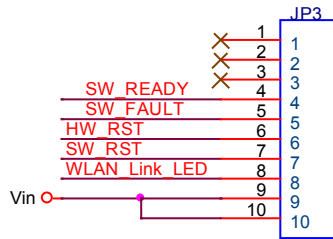


## Recommended P.C.Board



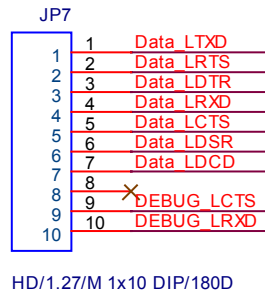
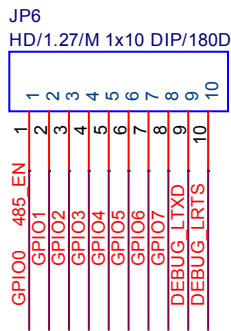
Hole Layout

# System Power Circuit Design



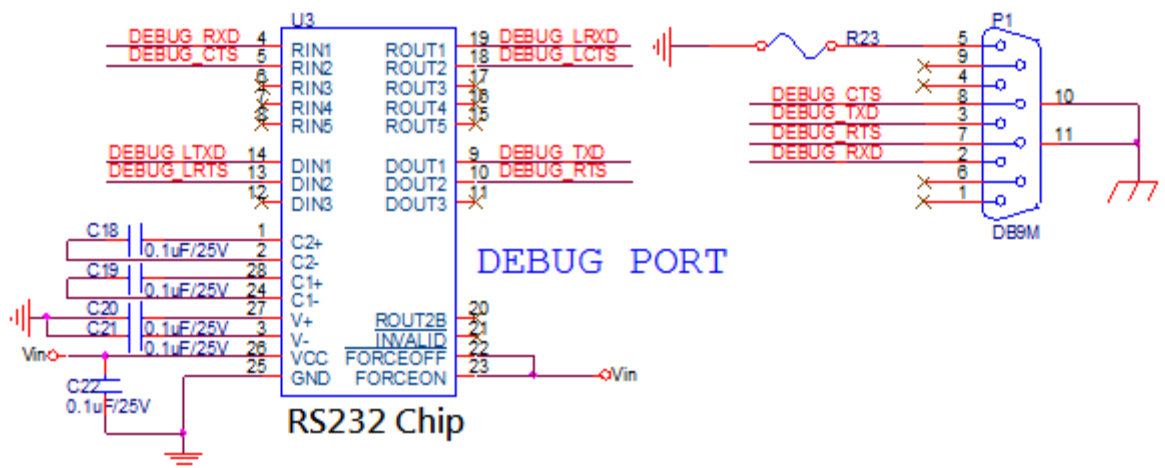
Symbol	Parameter	Min	Nominal	Max	Units
Vin	Supply Voltage	3.135	3.3	3.465	V

# RS-232 Circuit Design

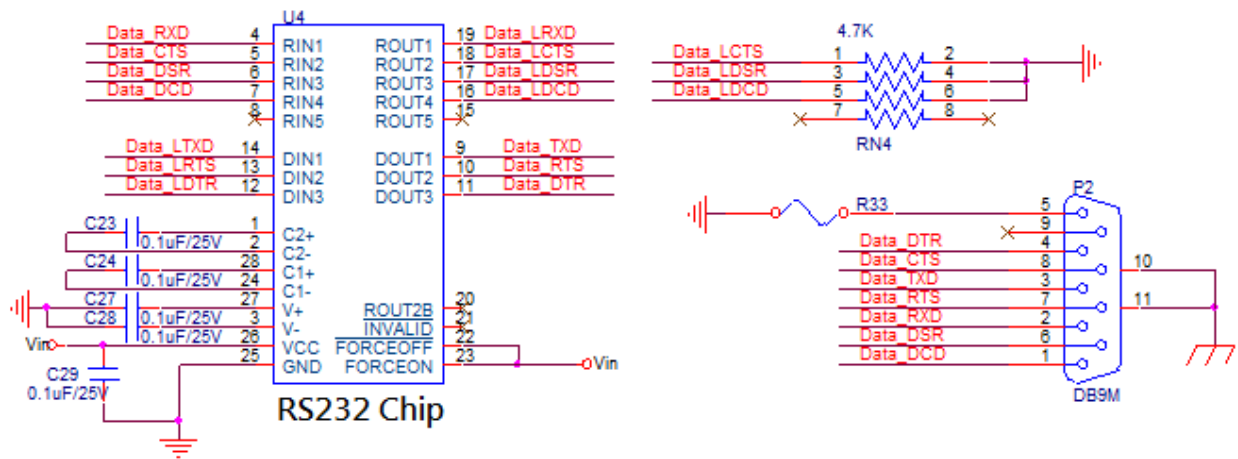


HD/1.27/M 1x10 DIP/180D

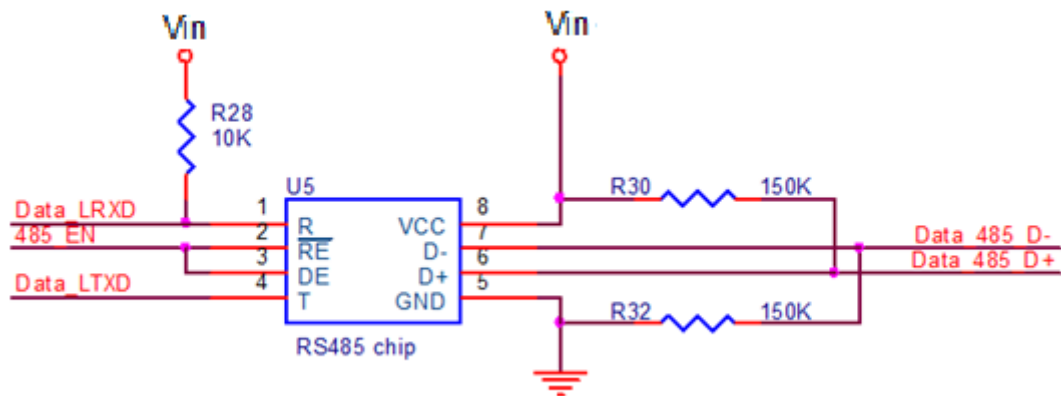
## ■ Debug Port



## ■ Data Port

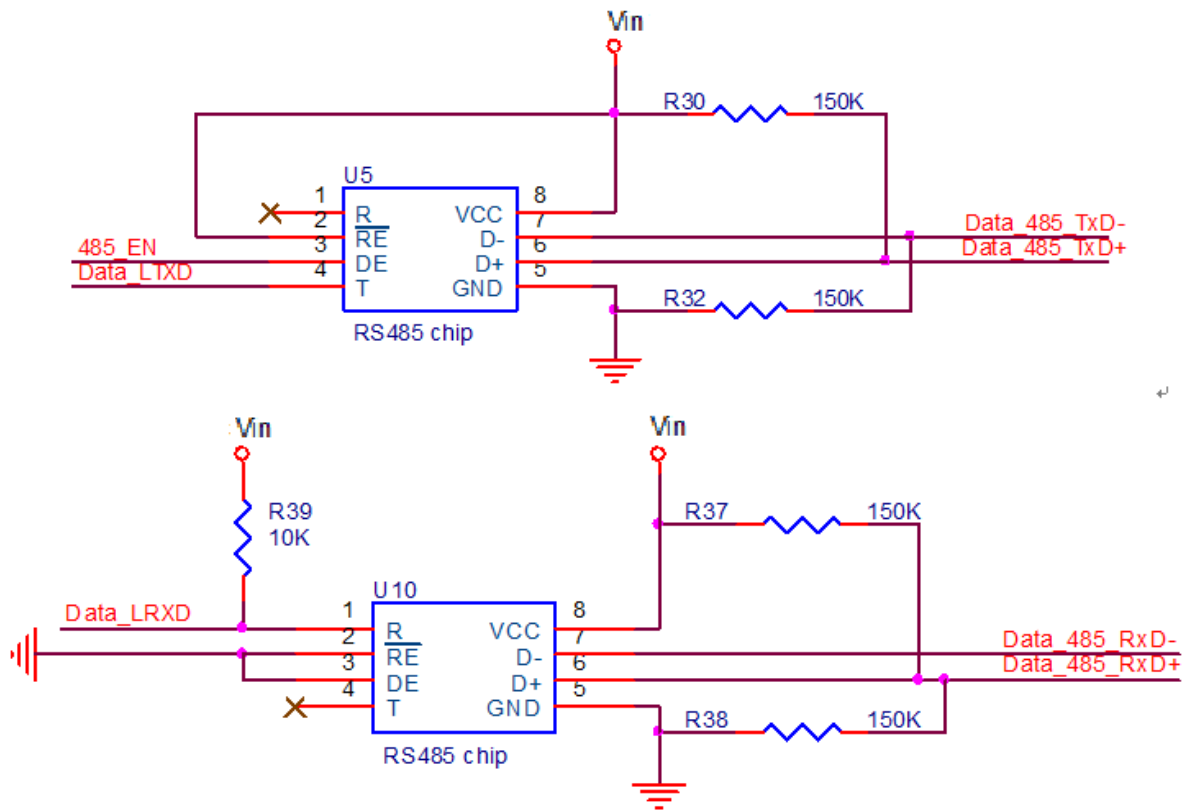


## RS485-2W Data Port Circuit Design

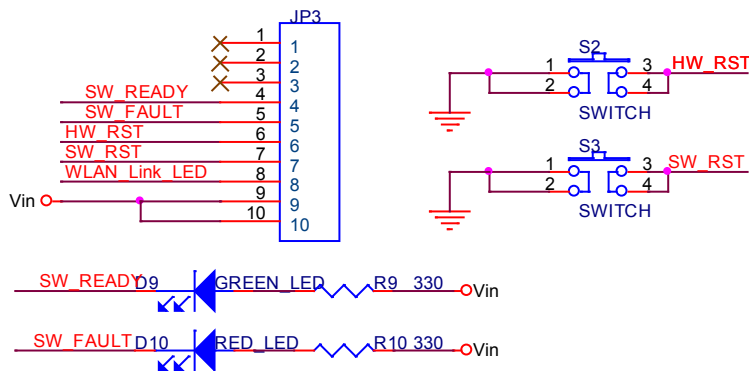




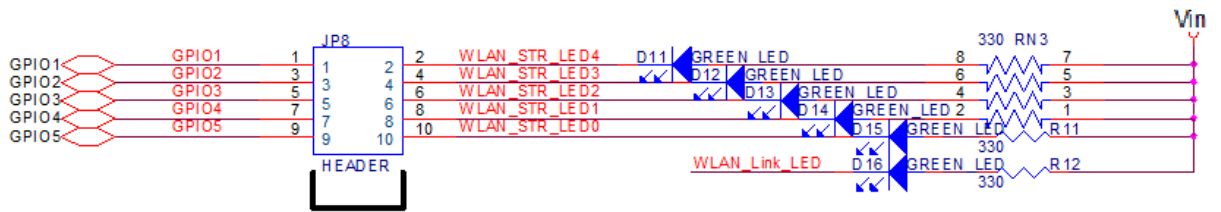
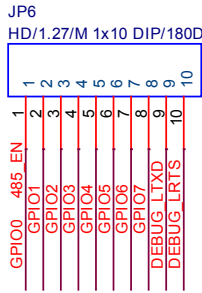
# RS485-4W Circuit Design



# SW/HW Reset and Ready/Fault LEDs Circuit Design

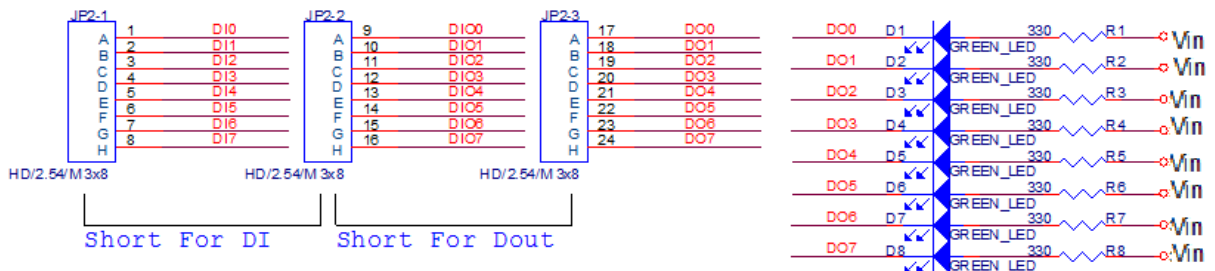
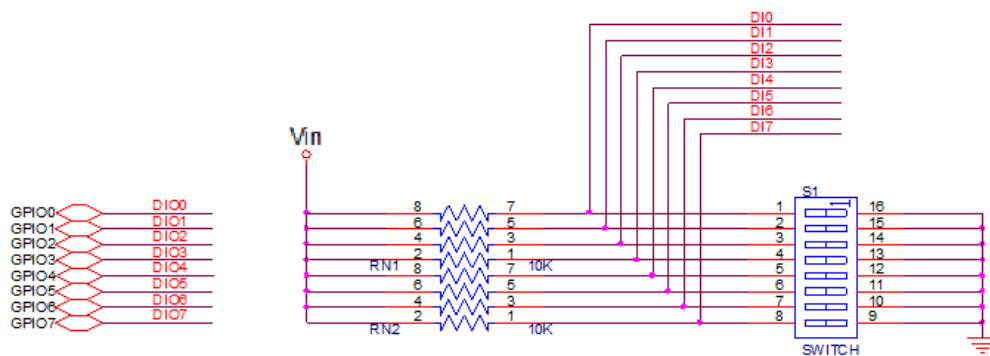
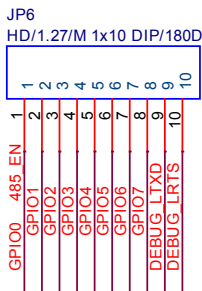


# WLAN Strength and Link status LEDs Circuit Design



Short for WLAN Strength LED

# DIO Circuit Design and DC Characteristics



Short For DI

Short For DOUT

Symbol	Parameter	Min	Typ.	Max	Units
VIL	Input Low Voltage	-0.3	N/A	1	V
VIH	Input High Voltage	2	N/A	3.46	V
VOL	Output Low Voltage	N/A	N/A	0.4	V
VOH	Output High Voltage	2.4	N/A	N/A	V
IOL/IOH	Driving Strength	N/A	8	N/A	mA

## Ethernet Circuit Design

