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Overview

W5500 IPRAW mode can handle IP layer's upper protocol in the TCP/IP Layer. W5500 IPRAW mode supports transport layer protocol such as [ICMP\(0x01\)](#), [IGMP\(0x02\)](#), [TCP \(0x06\)](#) and [UDP\(0x11\)](#) according to the protocol field of IP header, depending on the protocol number. The 'Ping' of ICMP is already implemented in W5500 as the Hardwired but when the user needs, the host can directly process the ICMP function include ping by opening the Socket n as an IPRAW mode.

Development Environment

- MCU : STM32F103C8
- Used program:
 - CoIDE V1.7.4
 - Flash Loader Demonstrator
 - Terminal v1.9b
 - WireShark V1.10.3

Application note & Source code

APPLICATION note

Version	Date	Download
1.0.0	2014-02-21	W5500_AP_IPRAW_V100E.pdf W5500_AP_IPRAW_V100K.pdf
1.1.0	2014-04-09	W5500_AP_IPRAW_V110E.pdf W5500_AP_IPRAW_V110K.pdf

APPLICATION Source Code

Version	Date	Download	Etc
1.0.0	2014-02-21	W5500_APC_IPRAW_V100.zip	Initial Version
1.1.0	2015-05-10	W5500_APC_IPRAW_V110.zip	Modify - Use all socket

Reference Video(Test Result)

- YouTube : [IPRAW Ping Test](#)

2014/02/21 13:09 · [ekkim](#)

For more information [W5500](#) chip please also refer to the chip's datasheet:

Datasheet

- [W5500 Datasheet v1.0.9 - English](#)
- [W5500 Datasheet v1.0.9 - Korean](#)

Datasheet History

Version	Date	Description
1.0.0	2013-08-01	Initial Release
1.0.1	2013-09-13	Corrected duplicated statements and typing errors (P.14, 23, 24, 28, 39, 51) Corrected descriptions (P.35)

Version	Date	Description
1.0.2	2013-11-14	Changed "descriptions of pin at 1.1 Pin Descriptions" (P.10) starting "It must be tied to GND to NC (PIN38..42)" / 2. corrected typing error: starting "0x02 to 0x42 value of SOCK_MACRAW at 4.2 Socket Registers(P.50)"
1.0.3	2014-05-29	Corrected "Sn_MSSR at 4.2 Socket Register" (P.53): wrong descriptions of Sn_MSSR about FMTU/MTU
1.0.4	2014-06-13	1. Added Note about reading size register value (P.56, 58) / 2. Added IR Reflow Temperature Profile (P.66)
1.0.5	2014-11-11	1. Added description for MISO pin (P.11):The SCSn signal defines MISO pin output value / 2. Modified the register notation (P.33), Modified the register notation "Sn_IR at 4.2 Socket Register" (P.49) :from [R] to [RCW1] / 3. Corrected typing error: from DICON to DISCON of Sn_SR at 4.2 Socket Register (P.50)
1.0.6	2014-12-30	Corrected typing error : from 0x02 to 0x42 value of SOCK_MACRAW "Sn_CR at 4.2 Socket Registers"(P.46)
1.0.7	2016-02-24	1. Corrected Interrupt Assert Wait Time function (P.34) / 2. Notice PLLclk is 150MHz (P.34)
1.0.8	2017-05-19	1. Corrected Driver Level Range Unit uW/MHz to uW (P.60)
1.0.9	2019-05-22	1. Corrected Sn_IMR Description (P.55) 2. Corrected Junction temperature Min value TJ (P.57) 3. Added Maximum junction temperature TJMAX (P.58)

WIZ550io History

Version	Date	Description
1.0	2013-08-01	Initial Release
1.1	2014-01-17	Changed "External Transformer + RJ-45 to MAGJACK(inside transformer)"
1.2	2015-04-20	Added "Resistor 33R in MDI line. because EMI issue." Changed "PCB artwork. because changed develop tool(PADS → Altium) "
1.3	2018-08-10	Modified "inner 2 layer copper foil (3V3D). This copper foil plated below of CHAND area. It may affect ESD."

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