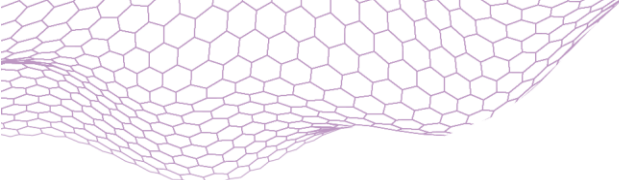




2-PORT ISOLATED RS485/RS422 MODBUS DEVICE SERVER

DDSE SERIES





SYNOPSIS

- THE DDSE I M 2 485 D 24 ME EQUIPPED WITH 2 × RS485/RS422 SERIAL INTERFACES AND 1 × 10/100 MBPS ETHERNET PORT FOR VERSATILE CONNECTIVITY.
- INCORPORATES AN EXTERNAL, INDEPENDENT HARDWARE WATCHDOG MECHANISM TO ENSURE RELIABLE OPERATION AND PREVENT SYSTEM CRASHES.
- SUPPORTS INDUSTRIAL-GRADE DC POWER INPUT RANGING FROM 9V TO 36V, WITH BUILT-IN REVERSE POLARITY PROTECTION.
- DESIGNED TO OPERATE IN EXTREME ENVIRONMENTS WITH A WIDE TEMPERATURE RANGE OF -40°C TO +85°C.
- CONSTRUCTED WITH A HIGH-STRENGTH ALUMINIUM ALLOY ENCLOSURE, OFFERING ROBUST DURABILITY AND IP40-RATED PROTECTION.

FEATURES

- USES 32-BIT ARM CORTEX-M7 CORE CPU, UP TO NEARLY 400MHZ FREQUENCY
- BAUD RATE FROM 600BPS TO 460KBPS
- SUPPORT UDP/UDP MULTICAST MODE, THROUGH THE UDP PROTOCOL TO ACHIEVE POINT-TO-POINT, POINT-TO-MULTIPOINT, OR MULTIPOINT-TO-MULTIPOINT COMMUNICATION.
- SUPPORT UDP, TCP, MODBUS, HTTPD, WEBSOCKET, MQTT, DDP/DC
- SUPPORTS TCP CLIENT/SERVER MODE, ESTABLISHES SESSION CONNECTION THROUGH TCP PROTOCOL, TCP CLIENT SUPPORTS UP TO 4 SESSION CONNECTIONS, TCP SERVER SUPPORTS UP TO 8 SESSION CONNECTION AND SUPPORT RFC2217 INSTRUCTIONS TO DYNAMICALLY MODIFY SERIAL PORT RATE AND OTHER COMMUNICATION PARAMETERS
- SUPPORT PAIR CONNECTION MASTER /SLAVE MODE, DEVICES CAN BE USED IN PAIRS
- SUPPORT MODBUS RTU/ASCII MASTER/SLAVE MODE.
- MODBUS TCP AND MODBUS RTU/ASCII PROTOCOL CONVERSION
- SUPPORT MODBUS FROM THE MACHINE READAHEAD, SINGLE PORT AUTOMATIC LEARNING UP TO 32 RTU OR 16 ASCII INSTRUCTIONS, TO ACHIEVE QUICK RESPONSE
- SUPPORT REALCOM MODE, MAPPING NETWORK FOR LOCAL COM, SEAMLESS CONNECTION
- SUPPORT HTTPD CLIENT MODE AND PERFORM GET OR POST OPERATION WITH HTTPD SERVER
- SUPPORT WEBSOCKET CLIENT MODE FOR TWO-WAY COMMUNICATION WITH WEBSOCKET SERVER
- SUPPORT MODBUS VIRTUAL ID, MAPPING MODBUS SLAVE REAL ID TO VIRTUAL ID FOR DATA COMMUNICATION, TO AVOID SLAVE ID DUPLICATION
- SUPPORTS MULTIPLE DATA PACKING MECHANISM, CONVERTS SERIAL PORT DATA INTO ETHERNET DATA PACKETS ACCORDING TO DATA LENGTH OR TIME, TO MEET THE REAL-TIME NEEDS OF DIFFERENT NETWORKS
- SUPPORT FOR PACKAGE REGISTRATION AND HEARTBEAT PACKAGES TO REALIZE CONNECTION VERIFICATION AND CONNECTION STATUS DETECTION
- SUPPORT SERIAL COMMUNICATION PARAMETERS, OPERATING MODES, SENDING AND RECEIVING FRAME STATISTICS

TECHNICAL SPECIFICATIONS

SOFTWARE

Network Protocol	IP, TCP/UDP, ARP, ICMP, DHCP, DNS, HTTP, RFC2217
IP Obtaining Method	Static IP/DHCP
DNS Resolution	Support
User Configuration	Web page configuration
Simple Transparent	UDP / UDP Multicast / TCP Client / TCP Server / RealCOM / Pair Connection
Modbus	Modbus ASCII / RTU to Modbus TCP
Serial Port Data Packaging	Time and length can be set; the maximum pack length is 1460 bytes
TCP Server	Each serial port can connect up to 8 TCP Client
Network Buffer	Send: 16 Kbyte. Receive: 16 Kbyte
Serial Buffer	Send: 1.5 Kbyte Receive: 1.5 Kbyte
Heartbeat Package	Support TCP Keepalive, customize heartbeat package content
Registration Package	Customize the heartbeat packet
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Yes
Transmission Delay	<10ms
Ethernet port	1*10/100Base-T(X) RJ45 Auto-Negotiation, Full / half-duplex, auto MDI/MDI-X
Serial Port	Port type: 2× RS485/422 Connector : 5-pin 5.08mm pitch terminal block Baud rate : 600bps to 460Kbps Data bit : 7bit, 8bit Stop bit : 1bit, 2bit Parity bit : None, Odd, Even
Reset	One-click restart, factory reset
Status LEDs	Power supply indicator Running indicator, alarm Ethernet port indicator Serial port indicator

APPROVALS & STANDARDS TESTED FOR

IEC 61000-4-2	ESD: Electrostatic Discharge
IEC 61000-4-4	EFT: Electrical Fast Transient
IEC 61000-4-5	Surge Immunity

POWER

Input Voltage	DC 9 to 36V
Power Consumption	< 1W @ DC12V
Connection	Two 5.08mm spacing wiring terminals or Φ 2.5mm DC round head

MECHANICAL

Dimensions	162*95*29mm (Mounting brackets excluded)
Installations	Wall-mounted
Ingress Protection	IP40

ENVIRONMENT

Operating temperature	-40 to 85°C
Storage temperature	-40 to 85°C
Relative humidity	5% to 95% (no condensation)

ORDERING CODE

DDSE I M 2 485 D 24 ME

DDSE	Databridge Dynamic Serial to Ethernet Converter
I	Isolated ports
M	Modbus RTU to Modbus TCP
2 485	2* RS485/422
D 24	Input 24 Vdc (Ranges DC 9 to 36V)
ME	Fixed