

TS4000 Remote Diagnostics

Remote Diagnostics is a TS4000 firmware option that allows the status of remote TS4000s to be checked, over the air, from any other TS4000.

Features

- Allows for the test and verification of a system independent of host equipment (RTU, GPS, etc.).
- Provides easy determination of the radio coverage and signal quality between TS4000s.
- Available while the system in operation.
- Can be used through Serial Port 1 or Serial Port 2 of the TS4000.
- Windows display software provided, free of charge, with the TS4000 Configuration Software.
- Remote Diagnostics function is available to other equipment through the use of control strings.
- Upgrade available for all TS4000s. Contact Teledesign for pricing.

The screenshot shows the 'TS4000 Configuration' window with a menu bar (File, Modem, Help) and a toolbar. The main area displays configuration settings for a serial port (Baud Rate: 9600, Data Bits: 8, Parity: None) and a table of diagnostic results. The table has columns for Group Address, Individual Address, Path, RSSI Inbound, RSSI Outbound, RSSI Repeater, Input Voltage, Radio Voltage, Temp (deg C), Temp (deg F), Tx Power Forward, Tx Power Reflected, Successes/Attempts, Response Time (sec), and Last Attempt.

Group Address	Individual Address	Path	RSSI Inbound (-dBm)	RSSI Outbound (-dBm)	RSSI Repeater (-dBm)	Input Voltage	Radio Voltage	Temp (deg C)	Temp (deg F)	Tx Power Forward (watts)	Tx Power Reflected (watts)	Successes/Attempts	Response Time (sec)	Last Attempt
02	900B	Local	83	NA	NA	13.58	12.97	36	97	5.0	NA	11/11	0.05	Successful
02	900B	Repeater: 02.104	83	83	83	13.58	12.94	36	97	5.0	NA	8/8	0.33	Successful
02	998	Direct	63	62	NA	13.58	12.97	36	97	5.0	NA	9/9	0.27	Successful
02	998	Repeater: 02.104	83	62	94	13.58	12.97	36	97	5.0	NA	9/9	0.36	Successful
02	502	Direct	70	69	NA	13.61	13.01	36	97	5.0	NA	9/9	0.22	Successful
02	502	Repeater: 02.104	83	69	97	13.61	13.01	36	97	5.0	NA	9/9	0.37	Successful
02	503											0/4		Failed
02	501	Direct	70	70	NA	13.61	12.95	35	95	5.0	NA	8/8	0.17	Successful
02	104	Direct	83	82	NA	13.50	13.00	36	97	5.1	NA	8/8	0.15	Successful

Diagnostic Parameters

- Address – Indicates the address and the active unit in a redundancy switch (A or B).
- Path:
 - Local – From the modem physically connected to the PC.
 - Direct – Over the air directly without a store and forward repeat.
 - Repeater – Over the air through one or more store and forward repeaters. The list shows the last five repeaters.
- RSSI Inbound – The RSSI (Receive Signal Strength) of the incoming response packet.
- RSSI Outbound – The RSSI at the remote TS4000.
- RSSI Repeater – The RSSI of the returning packet at the first store and forward repeater.
- Input Voltage – The input voltage to the TS4000.
- Radio Voltage – The internal regulated voltage of the TS4000.
- Temperature – The internal temperature of the TS4000.
- Transmit Power – The transmit power of the TS4000. Not available on all TS4000 models.
- Successes/Attempts – The number of successfully received and attempted diagnostics packets.
- Response Time – The over the air response time of the last successful attempt.

