

Toshiba TOSVERT Protocol

Connector Configuration Parameters

RTS ON DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to delay sending a message after turning on Request To Send (RTS). Commonly used with modem communication to allow additional time for the modems to synchronize.

RTS OFF DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to keep RTS on after a message has been sent. Commonly used to keep a radio on for a short period of time at the end of a message.

Handshake Option

If Full Handshake is selected the Omnii-Comm will assert RTS and wait for CTS before sending a message. RTS will be turned off after the message has been sent. If Constant Carrier is selected the Omnii-Comm will assert RTS when it sends its first message and leave it asserted. It will wait for CTS before sending. If Ignore CTS is selected, RTS will be asserted before sending a message and removed at the end of the message. The CTS input will be ignored. If No Handshake is selected, RTS will be asserted when the Omnii-Comm sends its first message. RTS will not be turned off at the end of the message. The CTS input will be ignored. If Activity Monitor is selected, the Omnii-Comm will check the DCD input before sending a message. If DCD is ON, the Omnii-Comm will delay sending the message.

Retry Count

The number of times a message will be retried before an error is reported

Option Bit Parameters

Use Radio Key

If checked, Bit 0 in a register specified by the "Radio Key Address" on the Header configuration screen will be turned ON before a message is sent and turned OFF after the message has been completed.

Toshiba TOSVERT Protocol

Protocol Extension Table Parameters

The Protocol extension table is used to define additional parameters required for TOSVERT communication. Click on the box to enable the Protocol Extension Table. Click on the button to bring up the specific options as detailed below.

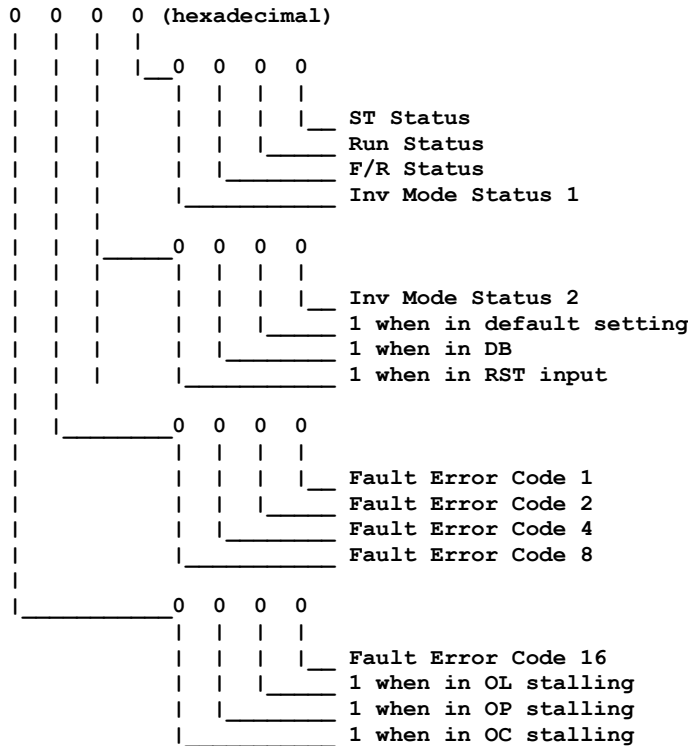
Status Table Start Address

TOSVERT Data Read and Monitor messages include an Inverter Status word with each message that is returned. The Status Word is a 4-digit hexadecimal coded number. The Omnii-Comm extracts this number and stores it in a table located in paged RAM. The table has 32 words of storage, one for each Inverter number. The starting address of this table is determined by the value entered in this field. Valid addresses are between 6000 (hex) and 7F00 (hex). Typically, there will be a polling table that reads the Status Table to make it available to other protocols.

Status Table RAM Page

There are six pages of RAM that can be used for for the Status Table. This entry specifies the RAM page that will be used. Valid page entries are 7 through 12. Some other protocols also use paged RAM for various uses. The user must be sure that the RAM addresses defined in the TOSVERT extension table are not used by other protocols that may be configured.

Inverter Status Word



Toshiba TOSVERT Protocol

Poll Table Read Parameters

Inverter Number

The communication ID number of the Inverter that will respond to this read request.

Command

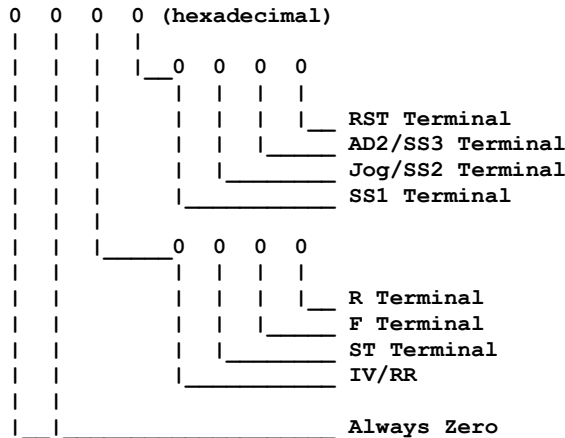
The type of read to be performed. There are two types of read polls, Data Read and Status Monitor. The data returned will be either a 4-byte IEEE formatted Floating Point number or a 2-byte Integer or hexadecimal number depending on the Data Number of Monitor Number. See the table below for details.

Monitor/Data Number

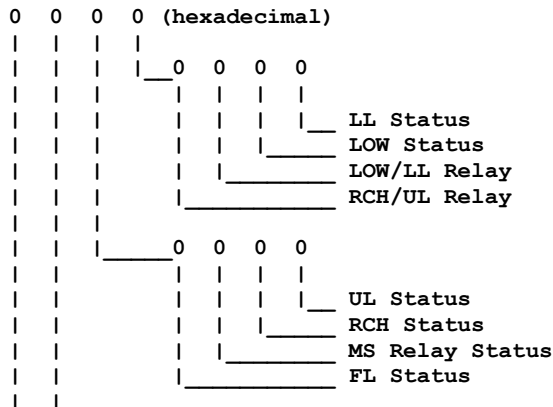
Enter the Monitor Number if the command is Status Monitor or the Data Number if the command is a Data Read. Valid Monitor Numbers are from 0 to 9 as shown in the table below.

Monitor No.	Content	4-byte Float	2-byte Integer	2-byte Hex
00	Operating Frequency	X		
01	Frequency Command Value	X		
02	Current		X	
03	Voltage		X	
04	IP Status			X
05	OP Status			X
06	ERR1		X	
07	ERR2		X	
08	ERR3		X	
09	ERR4		X	

IP_Status



OP Status



Toshiba TOSVERT Protocol

|_| _____ **Always Zero**

Toshiba TOSVERT Protocol

Valid Data Numbers are from 0 to 92 as shown in the table below.

Data No.	Content	4-byte Float	2-byte Integer	2-byte Hex
00	Option Frequency Command	X		
01	Maximum Frequency	X		
02	Torque boost amount		X	
03	Base Frequency	X		
04	V/f pattern		X	
05	Acceleration time 1	X		
06	Deceleration time 1	X		
07	Pattern of Acc/Dec 1		X	
08	Acceleration time 2	X		
09	Deceleration time 2	X		
10	Pattern of Acc/Dec 2		X	
11	Selection of Acc/Dec		X	
12	Upper Limit Frequency	X		
13	Lower Limit Frequency	X		
14	Electronic Thermal Protection Level		X	
15	Stall Prevention Activation Level		X	
16	Electronic Thermal Protection Characteristic Selection		X	
17	Setting Signal at Terminal		X	
18	Output Frequency at Point 1	X		
19	Setting Signal at Terminal		X	
20	Output Frequency at Point 1	X		
21	Jogging Run Frequency	X		
22	Jogging Run Stop Pattern		X	
23	1 st Speed Operating Frequency	X		
24	2 nd Speed Operating Frequency	X		
25	3 rd Speed Operating Frequency	X		
26	4 th Speed Operating Frequency	X		
27	5 th Speed Operating Frequency	X		
28	6 th Speed Operating Frequency	X		
29	7 th Speed Operating Frequency	X		
30	Jump Frequency 1	X		
31	Jump Band-Width 1	X		
32	Jump Frequency 2	X		
33	Jump Band-Width 2	X		
34	Jump Frequency 3	X		
35	Jump Band-Width 3	X		
36	Input Terminal Selection		X	
37	Output Terminal Selection		X	
38	Forward/Reverse Run Selection		X	
39	Trip Retention Selection		X	
40	Automatic Restarts		X	
41	Restart after Instantaneous Power Interrupt Selection		X	
42	Start-up Frequency Selection	X		
43	DC Injection Breaking Start-up Frequency	X		
44	DC Injection Breaking Voltage		X	
45	DC Injection Breaking Time	X		
46	Universal Unit Display Multiplication Factor	X		
47	Low Speed Signal Output Frequency	X		
48	Speed Reach Selection		X	
49	Speed Reach Detection Range	X		
50	Speed Reach Specification Frequency	X		
51	Output Voltage Regulation		X	
52	Regenerative Breaking Selection		X	
53	FB or PI Selection		X	

Toshiba TOSVERT Protocol

54	Proportional Gain		X	
55	Integral Gain		X	
56	Antihunting Gain		X	
57	First Order Delay Filter Constant		X	
58	PWM Carrier Frequency	X		
59	Memory Function		X	
60	Baud Rate		X	
61	Operating Time of 1 st Patterned Run		X	
62	Foreward/Reverse, Acc/Dec 1 /2		X	
63	Operating Time of 2 nd Patterned Run		X	
64	Foreward/Reverse, Acc/Dec 1 /2		X	
65	Operating Time of 3 rd Patterned Run		X	
66	Foreward/Reverse, Acc/Dec 1 /2		X	
67	Operating Time of 4 th Patterned Run		X	
68	Foreward/Reverse, Acc/Dec 1 /2		X	
69	Operating Time of 5 th Patterned Run		X	
70	Foreward/Reverse, Acc/Dec 1 /2		X	
71	Operating Time of 6 th Patterned Run		X	
72	Foreward/Reverse, Acc/Dec 1 /2		X	
73	Operating Time of 7 th Patterned Run		X	
74	Foreward/Reverse, Acc/Dec 1 /2		X	
75	Command Mode Selection		X	
76	Frequency Setting Mode Selection		X	
77	Parameter Setting Mode		X	
78	Automatic Torque Boost		X	
79	RR Input Acceptability with IV Input		X	
80	Power Control Function		X	
81	Operation Start by Frequency		X	
82	Hysteresis of F Run		X	
83	Overvoltage Stall Function		X	
84	PG Feedback Selection		X	
85	Coefficient of PG		X	
86	Option Terminal Selection		X	
87	Communication Bit		X	
88	Communication Parity and Stop Bit		X	
89	Changeover Signal for Power Supply		X	
90	Patterned Operation Mode		X	
91	Patterned Time Unit Selection		X	
92	Patterned Repetition Count		X	

Poll Table Write and Error Parameters

INVALID SELECTION. Can not Write to Sullair from the Poll Table. Use Commands to send data to the Sullair.

Note: System Error Protocol Definitions are the same as Poll Table Write and Error Parameters

Database Extension Table Parameters

Index	Name	Size
0	INVALID SELECTION	