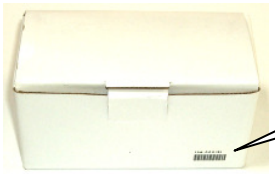
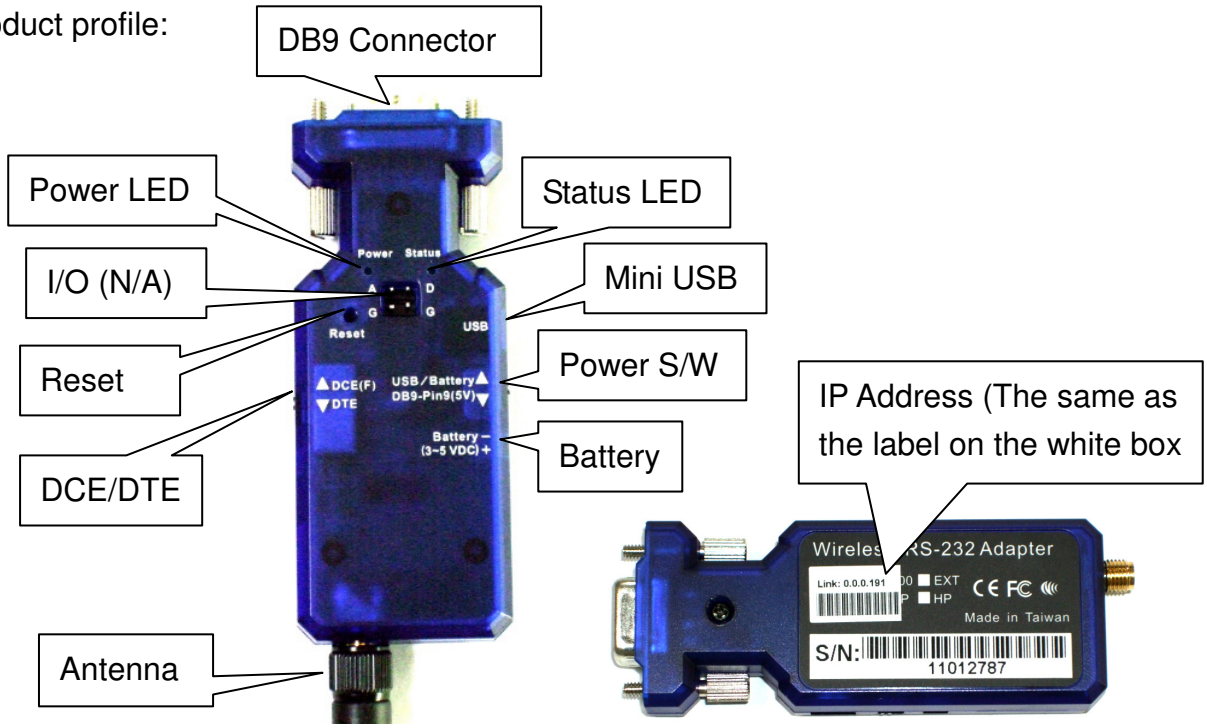
UHF RS-232 Adapter

1. Package Contents:
   - UHF RS-232 adapter x 1
   - Battery power line with connector x 1
   - User manual x 1
   - USB Cable x 1
   - 0dBi Dipole Antenna x 1



White box: Dimension: 10 x 5.5 x 5 (cm)
Weight: 122 g

2. Product profile:



(Top view) (Rear Side)

3. Power supply:

3.1 Mini USB: The USB cable is included in the package

3.2 Pin 9 of DB9 connector: 5VDC input, 1.5A Max.

3.3 External battery

- Standard A, AA or AAA battery: 3 units for each model.

- Li-Polymer Battery: 3~3.7 VDC. The capacity depends on the applications. General working power consumption: 100 mAh (for reference)

4. Default setting of the COM port
   - Baud rate: 9600 bps
   - Data bit: 8

- Parity: none
- Stop bit: 1
- Flow control: none

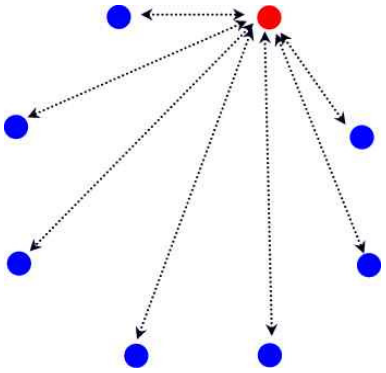
Restore the factory settings by the “Reset” (Pressed with a clip or pin into the hole)

5. DCE/DTE Slide Switch

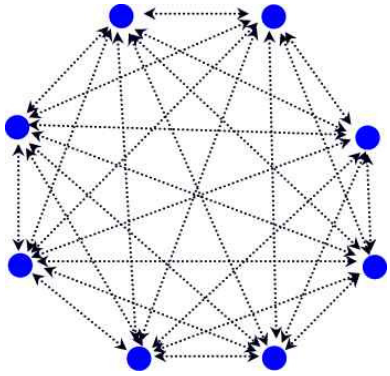
Use the slide switch to swap between DTE/DCE. By switching, you can set the adaptor either as a DTE (towards antenna connector) or a DCE (towards RS232 connector).

6. Network: (Up to total 9 devices)

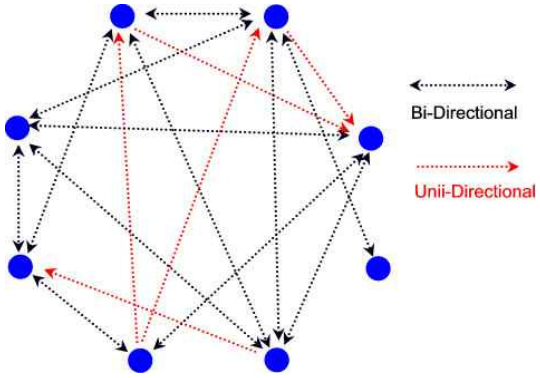
6.1 Star



6.2 Broadcast



6.3 Peer Mask

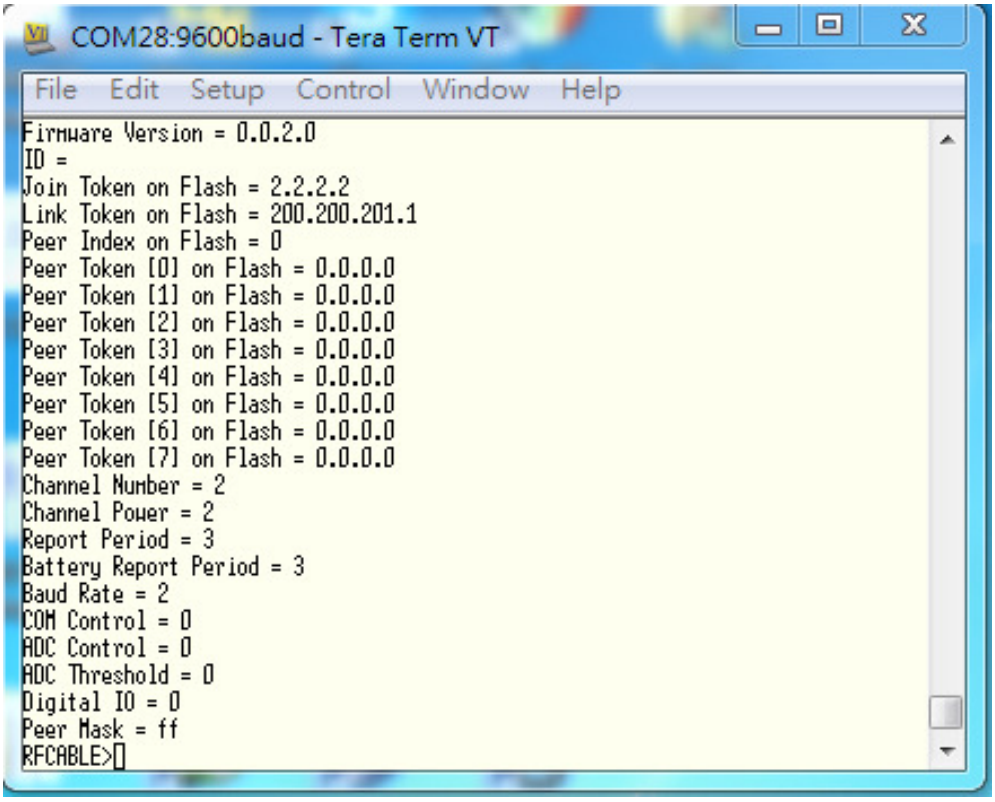


7. Configuration:

7.1 Set the device via COM port by using Hyper terminal, Telnet or other COM port tool freeware. Please set the COM port in the same with the default value as section 4.

7.2 Key in “+++” to switch data mode to command mode for setting.

7.3 Key in “SHOW” the staus will be displayed.



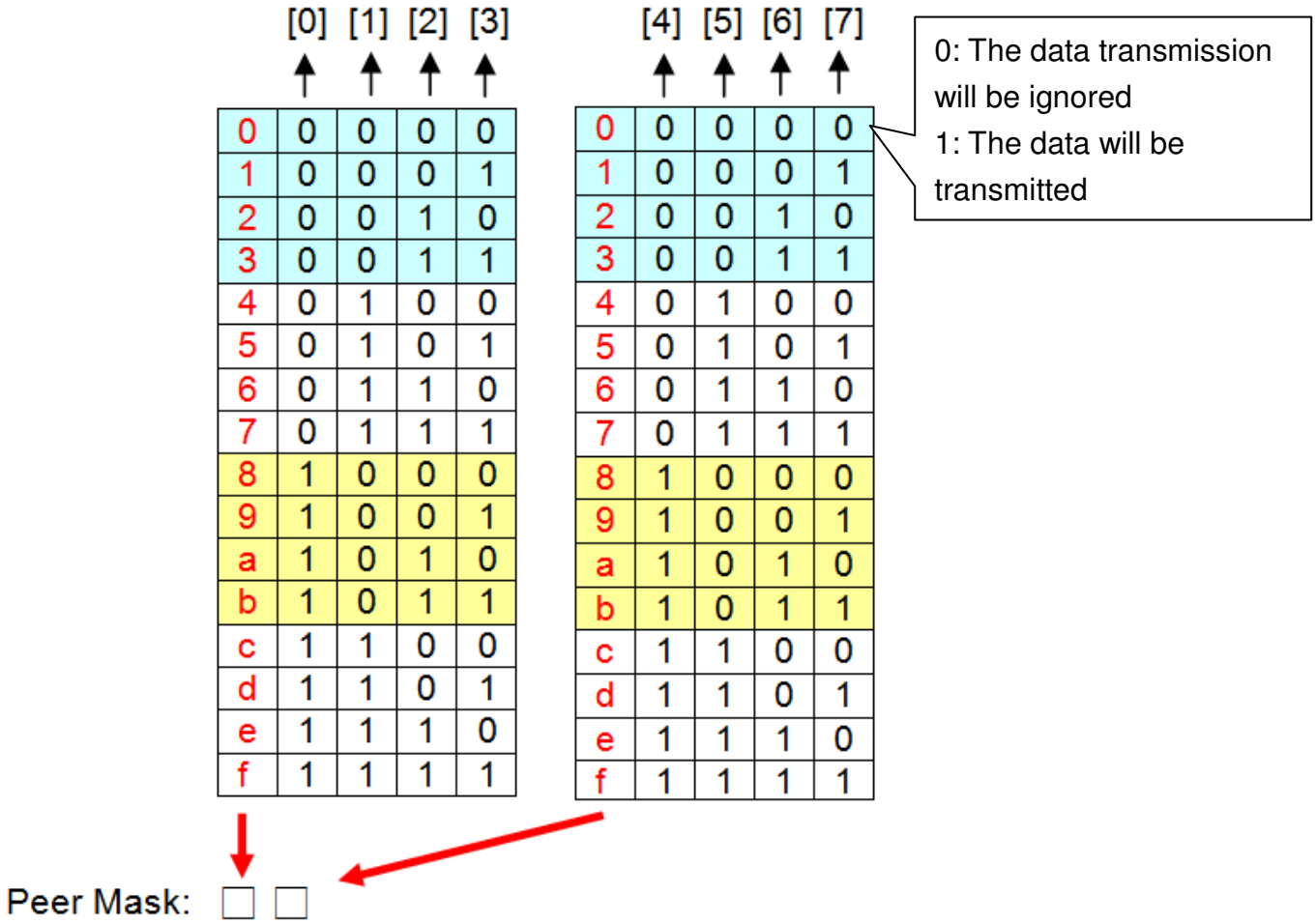
7.4 Command set: **(All the setting will be available after key in the "WF" command.)**

Command	Description	Options	Default Value
LT	Set Link Token by IP address format	0.0.0.0 ~ 255.255.255.255	0x01020304
PT	Set Peer Token by IP address format with Peer Index	Peer Index: 0-7 Peer Token: 0.0.0.0 ~ 255.255.255.255	0 0.0.0.0
RF	Read configuration data from flash memory.		
WF	Write configuration data to flash memory.		
CN	Configure channel number.	1: 922 2: 924 3: 926 4: 928	2:924
CP	Configure channel power.	1: -10 2: 0 3: 10	2:0
COMBR	Configure Baud Rate of COM port.	1: 4800 2: 9600 3: 19200 4: 38400 5: 57600 6: 115200 7: 230400	2:9600
COMCL	Configure control of COM port.	Bit 7 Parity enable 0: Parity disabled 1: Parity enabled Bit 6 Parity select 0: Odd parity 1: Even parity Bit 4 Character length 0: 8-bit data 1: 7-bit data Bit 3 Stop bit select 0 One stop bit 1 Two stop bits	0 Parity disabled Odd parity 8-bit data One stop bit
SHOW	Display all configuration setting.		
RB	Reboot the device.		
EX	Save configuration and Reboot		
MODE	Switch Data and Command	0: Command Mode	1

	Mode	1: Data Mode	
PM	Peer Mask	Refer to the page 10	Ff
AS	Address (Refer to the page 11)	0: The IP address of remote device will not appear 1: The IP address of remote device will appear	0

Remark: All the setting will be available after key in the "WF" command.

8. Peer Token:



Example:

Link Token on Flash = 0.0.0.1

Peer Token [0] on Flash = 0.0.0.2
Peer Token [1] on Flash = 0.0.0.3
Peer Token [2] on Flash = 0.0.0.4
Peer Token [3] on Flash = 0.0.0.5
Peer Token [4] on Flash = 0.0.0.6
Peer Token [5] on Flash = 0.0.0.7
Peer Token [6] on Flash = 0.0.0.8
Peer Token [7] on Flash = 0.0.0.9

For example:

Command “PM ac” means:

[0]	[1]	[2]	[3]	[4]	[5]	[6]	[7]
a	1	0	1	0	c	1	1	0	0

The local adapter which IP is 0.0.0.1 will transmit the data to peer token [0], [2], [4], [5] and will not transmit to the else.

Every adapter can be configured the “PM” command for data transmission. The default value is “ff” which means the adapter can transmit to all other adapters paired by “PT” command.

9. Send the data with or without IP address.

Command AS: Turn on or off of the IP address comes from remote device

Command "AS 1" is to append remote device information to RS232 msg.

Example 1:

If we received a message from 100.100.100.1

Original message is: ABCD

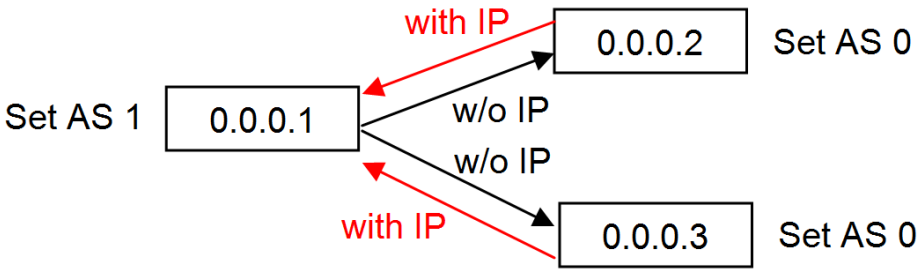
now is: (byte0 Number)100 (byte1 Number)100 (byte2 Number)100 (byte3 Number)1 (byte4)A (byte5)B (byte6)C (byte7)D

The first 4 bytes are used to store the peer address of remote device.

Command "AS 0" is not to append remote device information to RS232 message.

By default the address information is not appended to RS232 message.

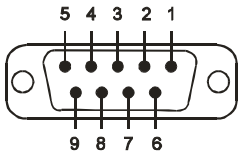
Example 2: For one to multi-points transmission applications.



Remark: The character '+' will not be transmitted to remote device.

10. RS232 Interface

10.1 Pin-out:



10.2 Signals:

Pin	Signal	DTE Direction	DCE Direction	Description
1	CD	Input	Output	Not connected
2	TxD	Output	Input	Transmitted data
3	RxD	Input	Output	Received data

4	DSR	Input	Output	Contact manufacturer to set this
5	GND	N/A	N/A	Signal ground
6	DTR	Output	Input	Contact manufacturer to set this
7	CTS	Input	Output	Clear to send
8	RTS	Output	Input	Request to send (Default)
9	Vcc	Input	Input	Power supply (5VDC, 1.5A Max.)