Advantech AE Technical Share Document

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Category	■FAQ □SOP	Related OS	N/A
Abstract	ADAM-20XX_The definition of link status		
Keyword	ADAM-20XX, Network, Link status, Gateway, Router, End-device.		
Related Product	ADAM-2K.		

■ **Problem Description:**

What does mean this value for device ADAM-2520Z (Address 40306). Which Link is described by this status?
Link between gateway and routers or end devices or the link between gateway and PC?

What does mean this value for routers and end devices (Address 40306). Which Link is described by this status?
Link between gateway and routers or end devices; link between routers and end devices?

40305	(N times of connection failed threshold)	Read	0x0002
40306	Link Status	Read	Bit 0: Connected Bit 1: Link Failure Bit 2: Disconnected Bit 3: Connecting
40310	Device Short Address	Read	0x0000~0xFFFF

Brief Solution - Step by Step:

ADAM-2520Z acts the data gateway which receives the data from all of the end-device periodically.

Since it's directly connected to the host via USB or RS-485 cable, the definition of the link status is different from the definition of repeater or end-device.

For ADAM-2520Z, it has two different MCU.

The link status is the initial handshakes between two MCUs through the UART.

When first handshake is established, the connecting bit will be on.

The connected bit will be on if second handshake also established successfully.

To sum up, the link status of ADAM-2520Z is NOT related to the wireless communication and more related to the internal bus communication between two MCUs.

For routers and end-devices, the link status states the communication status between the device and its parent (connected routers or gateway.)

The address of the parent can be found with Modbus address 40311.

	(Lower)		
40309	LQI Percentage	Read	0x0000~0x0064 (0~100%)
40310	Device Short Address	Read	0x0000~0xFFFF
40311	Parent Address	Read	0x0000~0xFFFF