HANNES SOFTWARE / BUS SCOPE SAMPLE EVIDENCE REPORT

USB device enumerates but the descriptor is wrong

A Bus Scope sample report that separates host driver blame from a device descriptor mismatch during enumeration.

SCENARIO

Firmware enumeration handoff

LIKELY CAUSE

Firmware descriptor tables, endpoint declarations, or configuration selection do not match the driver expectation.

FAILURE BOUNDARY

The host issued standard descriptor requests, but the device returned inconsistent interface and endpoint metadata before the driver could bind cleanly.

RAW EVIDENCE EXCERPT

```
GET_DESCRIPTOR(Device) succeeded;
GET_DESCRIPTOR(Configuration) returned
interfaces; endpoint metadata changed between
captures; driver bind failed after descriptor
parsing.
```

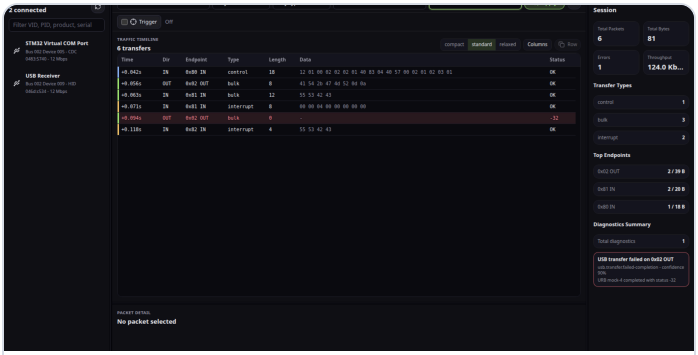
Evidence table

LAYER	FINDING	IMPLICATION
Control transfer	The host requested standard USB descriptors during enumeration.	The host stack is asking expected questions; the next boundary is the device response.
Descriptor bytes	Configuration and endpoint metadata do not match the expected interface contract.	Driver binding can fail even when the device appears on the bus.
Session handoff	The .bscope case preserves setup fields, payload bytes, and decoded descriptor output.	Firmware and driver teams can review the same evidence without replaying the device.

Recommended fix

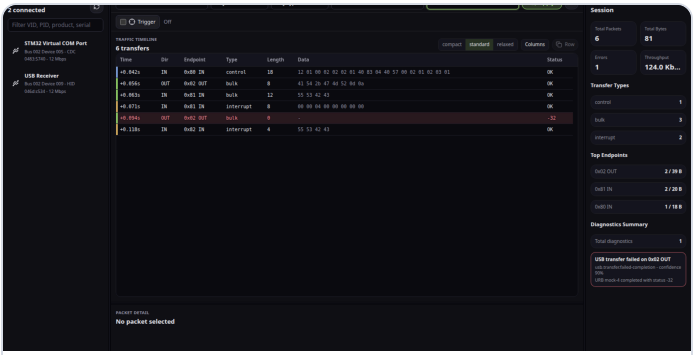
1. Compare the failing descriptor bytes against the firmware source table and a known-good capture.
2. Verify interface count, endpoint direction, endpoint type, max packet size, and class/subclass/protocol fields.
3. Attach the Bus Scope report to the firmware ticket instead of sending a screenshot of Device Manager.

Evidence screenshots



Packet detail evidence

Setup fields, raw bytes, and descriptor interpretation keep the failure attached to the USB control transfer.



Filter investigation

Endpoint, text, and hex filters reduce the capture to the transfers needed for firmware handoff.

This sample is static marketing evidence. Real reports are generated locally from the case data inspected in Bus Scope.