



Vehicle-mounted GMSL Video Stream Analyzer VSA100

Autonomous Driving GMSL Video Stream Data Capture

AUMO

VSA100:



Product Introduction:

The Vehicle-mounted Video Stream Data Analyzer VSA100 from Alinx is a cutting-edge GMSL data capture and analysis tool designed to simplify the verification of ECU-to-camera configurations and camera output formats/timings. This tool reduces the complexity of integrating injection, acquisition, or diversion equipment, enhancing interface efficiency.

I. Key Specifications

Project	Content	Project	Content
Serializer	MAX9295A/MAX96717F/MAX96717	DE-Serializer	MAX9296A
Single-channel HDMI Input	4096×2160@30fps, RGB888	Single-channel GMSL Input	4096×2160@30fps, YUV422; RAW12
Single-channel DP Output	4096×2160@30fps, RGB888	Dual-channel GMSL Output	4096×2160@30fps, YUV422; RAW12
POC Power Supply	Single-channel Max 1A@12V	External Trigger	Supports external trigger synchronization
Cable Length	GMSL1 mode: Up to 40 meters at 3Gbps GMSL2 mode: Up to 20 meters at 6Gbps	FAKRA	Amphenol Z code FAKRA x 3
Upgrade	Supports OTA firmware upgrade	Network	10/100/1000M adaptive
Operating Temperature	-40°C to 70°C	Storage Temperature	-40°C to 85°C
Operating Humidity	10% to 90%	Storage Humidity	0 to 90%
Power Supply	TYPE-C 12V power supply	Weight	

II. Software Parameters

Project	Content
Support System (Host Computer)	<p>Linux Kernel Version: UBuntu18-linux5.4.0-144, UBuntu20-linux5.15.0-67</p> <p>Windows Version: Windows 10, Windows 11</p>
Functionality	<ol style="list-style-type: none"> 1. Instantly captures and decodes the ECU's configuration settings for cameras, including image format and timing. 2. Rapidly check if the captured information is compatible with the AUMO product line's injection and acquisition cards. 3. Automatically retrieves information needed for configuring the distribution or splitting setup. 4. Supports Over-The-Air (OTA) firmware updates for easy system upgrades and maintenance.

III. Interface Description

The device features external interfaces on both sides, including one mini-DP for camera video image preview, an RJ45 Ethernet port for host computer interaction, one UVC TYPE-C interface for camera video image preview, a TYPE-C 12V DC input, one HDMI input for video source injection, one GMSL input, and two GMSL outputs.



IV. Dimensional Structure

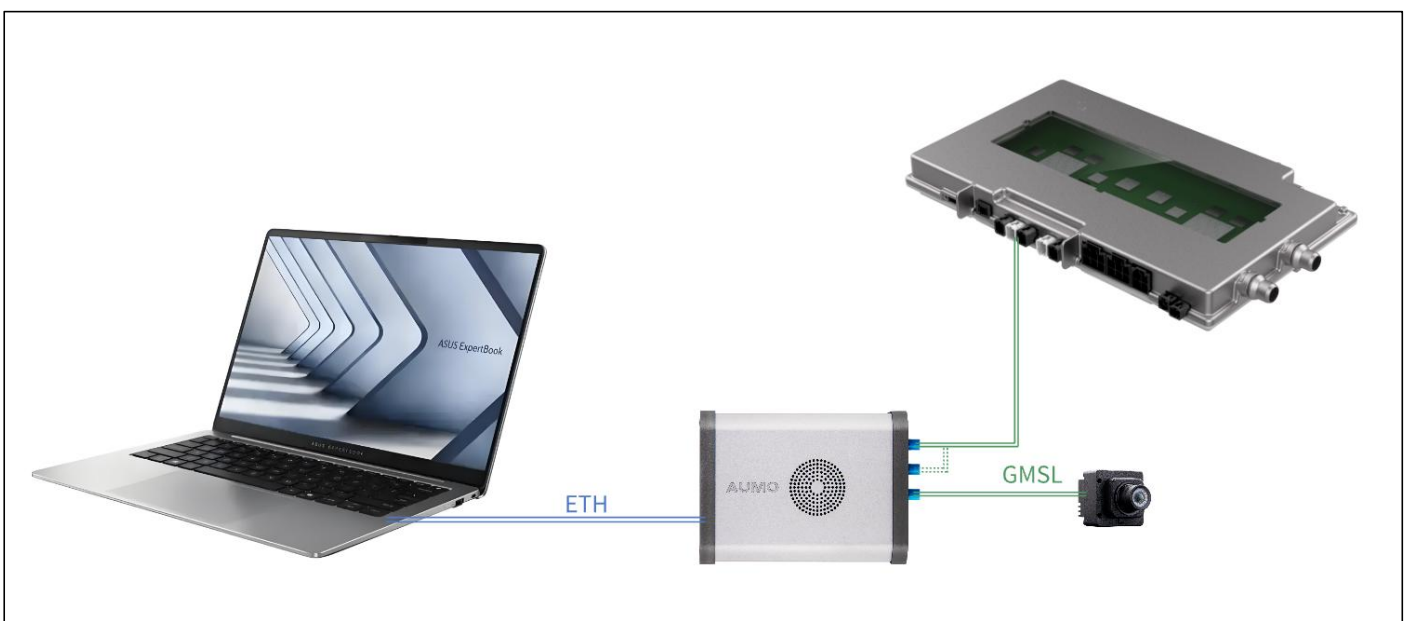


V. Power Consumption Testing

Project	Power Consumption (W)	Comments
Static Power Consumption	10	without a camera module connected
Dynamic Power Consumption	12	with one camera module connected

VI. Typical Cases

Between the autonomous vehicle domain controller and the camera, a VSA100 is inserted to capture information, which is then automatically analyzed by the host computer.



Document Revision Record:

Version	Time	Description
1.0	2024/12/10	Original Version

