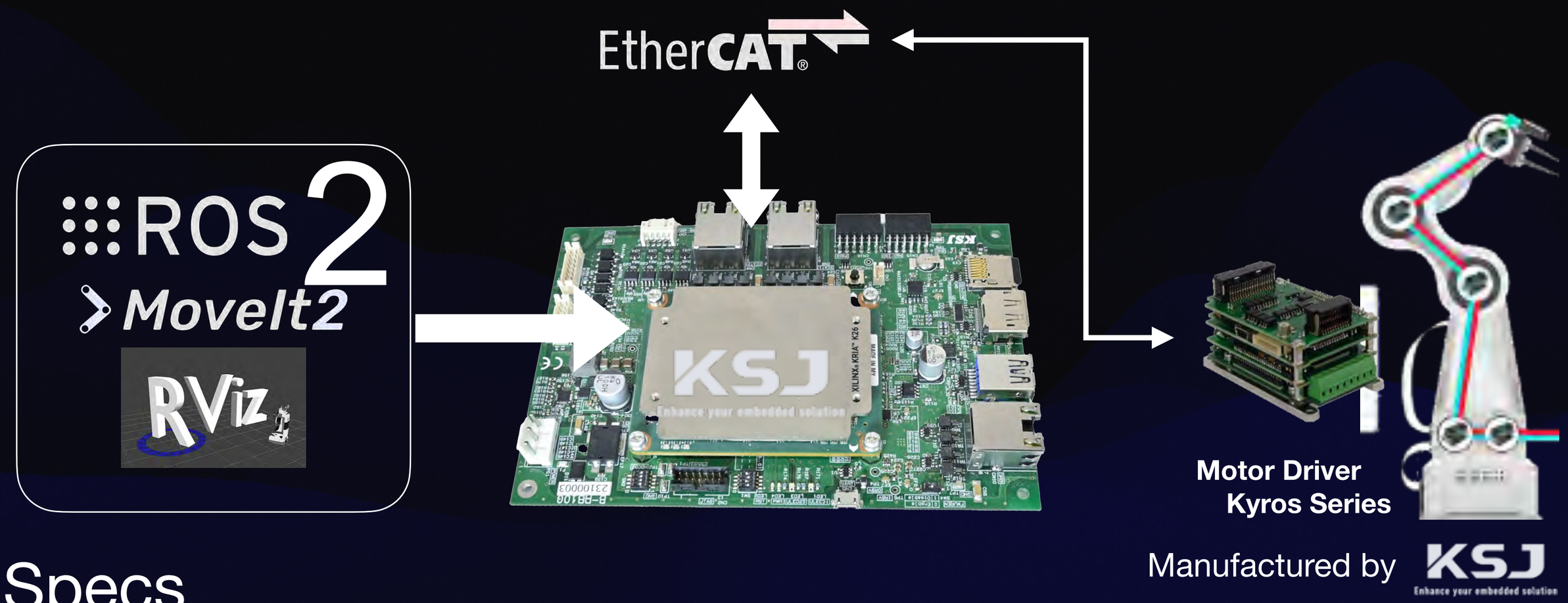
KR-KSJ-RB-100

Robot Controller

KAILAS ROBOTICS

RB100 simplifies robot developments.

By incorporating robot mechanism information into the RB-100, it is possible to replicate the same operations in the user's development environment as those simulated on a PC using ROS (Robot Operating System). The main control board is capable of running ROS applications, enabling rapid generation of trajectory feedback. Trajectory data generated by ROS is divided into control data for EtherCAT communication and is then transmitted to each motor driver during the EtherCAT communication cycle. Simultaneously, the position data collected by each motor driver is aggregated back to the main control board via EtherCAT communication. This integration ensures precise and efficient control of robotic mechanisms.



Manufactured by KSJ Enhance your embedded solution

Specs

Main IC	Kria SoM K26 Arm CoretexA53×4 R5F×2 + FPGA Logic 256K logic cell
Memory	Main Memory(Kria) DDR4 SDRAM 4GB(64bit)
	Boot ROM(Kria) QSPI NOR Flash 64MB
	eMMC(Kria) 16GB
	microSD socket（on expansion board） SDHC/SDCX 128GB Ubuntu compatible
	Boot method: NOR Flash/microSD/eMMC/JTAG 4bit DIP swith
	EEPROM（Kria） 64bit MAC address
EtherCAT	RJ45 Giga Bit Ether× 2 ports (for cc-Link)

Ethernet	RJ45 1 Gbps: 1 port (for TCP/IP)
Display Port (Board)	:Linux GUI Output
Isolated and non-Isolated GPIOs(Pmod)	
USB port	USB3.0 or USB 2.0, USB UART
Slot	MicroSD slot (SDHC, SDHS compatible)
RS485/RS422 4ch	Full, Half duplex
Power supply	24V
Size	160 x110 mm
Operating temp	0 to 50 °C
CE marking	Compliant