

Bus systems	K-CAN	K-CAN2 K-CAN3 K-CAN4 K-CAN5	PT-CAN PT-CAN2	F-CAN	ICM-CAN
Speed	100 Kbps	500 Kbps	500 Kbps	500 Kbps	500 Kbps
Number of conductors	2	2	2	2	2
Bus type	Linear 2-wire parallel	Linear 2-wire parallel	Linear 2-wire parallel	Linear 2-wire parallel	Linear 2-wire parallel
Can operate in single wire mode	Yes	No	No	No	No
Resistance measured between bus wires	Will vary, ~800 - 12,000Ω	~60Ω	~60Ω	~60Ω	~60Ω
Scope voltage when binary 0	CAN High ~0 volts CAN Low ~5 volts	Both bus high and low ~2.5 volts	Both bus high and low ~2.5 volts	Both bus high and low ~2.5 volts	Both bus high and low ~2.5 volts
Scope voltage when binary 1	CAN High ~4 volts CAN Low ~1 volt	CAN High ~3.5 volts CAN Low ~1.5 volts	CAN High ~3.5 volts CAN Low ~1.5 volts	CAN High ~3.5 volts CAN Low ~1.5 volts	CAN High ~3.5 volts CAN Low ~1.5 volts
Average voltage when checked	CAN High ~0.2 volts CAN Low ~4.8 volts	CAN High ~2.6 volts CAN Low ~2.4 volts	CAN High ~2.6 volts CAN Low ~2.4 volts	CAN High ~2.6 volts CAN Low ~2.4 volts	CAN High ~2.6 volts CAN Low ~2.4 volts
Scope set up IMIB	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____

Bus systems	Single wire buses, i.e. LIN/BSD/K-Bus protocol, CAS, PA Bus etc.	Proprietary CAN buses, i.e. Local-CAN and S-CAN	D-Bus	D-CAN
Speed	9.6 Kbps - 20 Kbps	500 Kbps	9.6 Kbps	500 Kbps
Number of conductors	1	2	1	2
Bus type	Linear single wire	Linear 2-wire parallel	Parallel/linear	Parallel/linear
Can operate in single wire mode	Yes	No	Yes	No
Resistance measured between bus wires	Not measurable, only a single wire bus	~60Ω	Not measurable, only a single wire bus	~60Ω
Scope voltage when binary 0	~12 volt	Both bus high and low ~2.5 volts	~12 volt	- - -
Scope voltage when binary 1	~900 mV	CAN High ~3.5 volts CAN Low ~1.5 volts	~900 mV	- - -
Average voltage when checked	During communication ~8-12 volts	CAN High ~2.6 volts CAN Low ~2.4 volts	~8-12 volts when data is being requested from diagnostic equipment	- - -
Scope set up IMIB	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____	Volts per div: _____ Time base: _____

Bus systems	Byteflight	MOST Bus	Ethernet / OABR Ethernet	USB	FlexRay
Speed	10 Mbps	22.5 Mbps	100 Mbps / 2 x 100 Mbps	480 Mbps	10 Mbps
Number of conductors	One, 1 mm fiber optic star connection with master controller	One, 1 mm fiber optic serial connection	4 wires plus enable wire / 2 wires (OABR)	4	2
Bus type	Optical star structure	Optical series ring structure	Linear	Universal Serial Bus	Mixed topology 2-wire
Can operate in single wire mode	Yes	No, must have a series connection with remaining modules on bus	No	---	No
Resistance measured between bus wires	Optical, only light resistance can be measured or accessed with 3g	Optical, only light resistance can be measured or accessed with 3g	---	---	Follow diagnosis in ABL ~45Ω
Scope voltage when binary 0	---	---	---	---	Both bus high and low ~2.5 volts
Scope voltage when binary 1	---	---	---	---	FlexRay Low ~1.9 volts FlexRay High ~3.1 volts
Average voltage when checked	---	---	---	Can be checked with IMIB, USB test	~2.5 volts
Scope set up IMIB	---	---	---	Can be checked with IMIB, USB test	Volts per div: _____ Time base: _____