

# LVDS Interface ICs

27bit LVDS Transmitter 27 : 4 Serializer									
Part No.	Type	bits (bit)	Color Depth	Input Specification	Output Specification	Clock Frequency (MHz)	Supply Voltage (V)	Operating Temperature (°C)	Package
BU90T81	Serializer	27	8	LVC MOS	LVDS Single Link	20 to 112	1.65 to 1.95	-20 to +85	VBGA048W040
27bit LVDS Transmitter 27 : 8 Serializer									
BU90T82	Serializer	27	8	LVC MOS	LVDS Dual Link	10 to 174	1.62 to 1.98/ 1.62 to 3.60	-40 to +85	SBGA072T070A
35bit LVDS Transmitters 35 : 5 Serializer									
BU8254KVT	Serializer	35	10	LVC MOS	LVDS Single Link	8 to 112	3.0 to 3.6	-40 to +85	TQFP64V
BU8254GUW	Serializer	35	10	LVC MOS	LVDS Single Link	8 to 112	3.0 to 3.6	-20 to +85	VBGA099W060
56bit LVDS Transmitter 56 : 8 Serializer									
BU7988KVT	Serializer	56	8	LVC MOS	LVDS Dual Link	8 to 112	3.0 to 3.6	-20 to +85	TQFP100V
35bit LVDS Receiver 5 : 35 Deserializer									
BU90R104	Deserializer	35	10	LVDS Single Link	LVC MOS	8 to 112	2.3 to 3.6	-40 to +85	TQFP64V
56bit LVDS Receiver 8 : 56 Deserializer									
BU7985KVT	Deserializer	56	8	LVDS Dual Link	LVC MOS	20 to 112	3.0 to 3.6	-20 to +85	TQFP100V
67bit LVDS Receiver 10 : 67 Deserializer									
BU90R102	Deserializer	67	10	LVDS Dual Link	LVC MOS	8 to 160	2.3 to 3.6	-40 to +85	HQFP144VM
70bit LVDS Distributor									
BU90RT102	Serializer/ Deserializer	70	10	LVDS	LVDS	20 to 135	3.0 to 3.6	-20 to +85	HTSSOP-C64
4bit LVDS Driver									
BU90LV047A	Driver	4	-	LVC MOS	LVDS	250	3.0 to 3.6	-40 to +85	SSOP-B16
4bit LVDS Receiver									
BU90LV048	Receiver	4	-	LVDS	LVC MOS	250	3.0 to 3.6	-40 to +85	SSOP-B16
4bit LVDS Transceiver									
BU90LV049A	Transceiver	4	-	LVC MOS/LVDS	LVC MOS/LVDS	250	3.0 to 3.6	-40 to +85	SSOP-B16

# Timing Controllers

Timing Controller for FHD, WUXGA										
Part No.	Supply Voltage (V)	Input Specification	Output Specification	Input bits (bit)	Output bits (bit)	Clock Frequency (MHz)	Operating Temperature (°C)	Resolution	Package	Automotive Grade AEC-Q100
BU90AM4-03	1.62 to 3.63/ 1.62 to 2.20/ 1.08 to 1.32	MIPI DSI 4lane	P2P 8lane	8/6	8/6	40 to 200	-20 to +70	up to WUXGA (1920x1200)	UQFN54	-

## Multiple Input Switch Monitor LSIs

22ch models										
Part No.	Supply Voltage (V)	Switch Input Number	Switch Input Voltage Range (V)	Wetting Current (mA)	Operating Current Intermittent Monitoring 50ms (Max) (μA)	Control I/F	Clock Frequency (MHz)	Operating Temperature (°C)	Package	Automotive Grade AEC-Q100
BD3375KV-C	8.0 to 26.0 (VPUB/VPUB) 3.1 to 5.25 (VDDI)	22	-14 to +40	1/3/5/10/15 (Pull up/Pull down)	100	SPI	up to 4.4	-40 to +125	VQFP48C	YES
BD3378MUV-M	6.0 to 28.0 (VPUB/VPUB) 3.1 to 5.25 (VDDI)	22	-14 to +40	1/3/5/10/15 (Pull up/Pull down)	100	SPI	up to 4.4	-40 to +125	VQFN48MCMV070	YES

  

33ch models										
Part No.	Supply Voltage (V)	Switch Input Number	Switch Input Voltage Range (V)	Wetting Current (mA)	Operating Current Intermittent Monitoring 50ms (Max) (μA)	Control I/F	Clock Frequency (MHz)	Operating Temperature (°C)	Package	Automotive Grade AEC-Q100
BD3381EKV-C	6.0 to 28.0 (VPUB/VPUB) 3.1 to 5.25 (VDDI)	33	-14 to +40	1/3/5/10/15 (Pull up/Pull down)	110	SPI	up to 4.4	-40 to +125	HTQFP64BV	YES

  

10ch models										
Part No.	Supply Voltage (V)	Switch Input Number	Switch Input Voltage Range (V)	Wetting Current (mA)	Operating Current Intermittent Monitoring 50ms (Max) (μA)	Control I/F	Clock Frequency (MHz)	Operating Temperature (°C)	Package	Automotive Grade AEC-Q100
BD3376EFV-C	8.0 to 26.0 (VPUB/VPUB) 3.1 to 5.25 (VDDI)	10	-14 to +40	1/3/5/10/15 (Pull up/Pull down)	100	SPI	up to 4.4	-40 to +125	HTSSOP-B30	YES

## IrDA Controllers

IrDA SIR Encoder/Decoder						
Part No.	Supply Voltage (V)		Data Rate (bps)	Clock Frequency (MHz)	I/F	Package
	V <sub>DD</sub>	V <sub>IO</sub>				
BU92001KN	2.50 to 3.50	—	2.4k to 115.2k	24.0 to 29.5	UART	VQFN20

  

IrDA SIR, MIR, FIR, IrSimple Controllers/Remote Control Transmitters						
Part No.	Supply Voltage (V)	Operating Temperature (°C)	Data Rate (bps)	Clock Frequency (MHz)	I/F	Package
BU92747GUW	1.62 to 1.98	1.62 to 3.60	2.4k to 115.2k, 0.576M, 1.152M, 4M	48	Parallel BUS (16bit)	VBGA048W040
BU92747KV	1.62 to 1.98	1.62 to 3.60	2.4k to 115.2k, 0.576M, 1.152M, 4M	48	Parallel BUS (16bit)	VQFP48C

## LIN Transceivers

LIN Transceivers								
Part No.	Supported Standards	Supply Voltage (V)	Operating Temperature (°C)	Absolute Maximum Rating of LIN pin (V)	Baud Rates (Max) (kbps)	Supply Current at Sleep Mode (Typ) (μA)	Package	Automotive Grade AEC-Q100
BD41030FJ-C	LIN2.0, LIN2.1, LIN2.2, LIN2.2A	5 to 27	-40 to +125	-27 to +40	20	3	SOP-J8	YES
BD41030HFN-C	LIN2.0, LIN2.1, LIN2.2, LIN2.2A	5 to 27	-40 to +125	-27 to +40	20	3	HSO8	YES

## CAN Transceivers

CAN Transceivers								
Part No.	Supported Standards	Supply Voltage (V)	Operating Temperature (°C)	Absolute Maximum Rating of CAN pin (V)	Data Rates (Max) (Mbps)	Supply Current at Standby Mode (Typ) (μA)	Package	Automotive Grade AEC-Q100
BD41041FJ-C	ISO 11898-2: 2016	4.75 to 5.25	-40 to +125	-27 to +40	1	10	SOP-J8	YES
BD41044FJ-C	ISO 11898-2: 2016	4.75 to 5.25	-40 to +125	-27 to +40	5	10	SOP-J8	YES

## CXPI Transceivers

CXPI Transceivers									
Part No.	Supported Standards	Supply Voltage (V)	Operating Temperature (°C)	Absolute Maximum Rating of BUS (V)	Baud Rates (kbps)	Supply Current at Sleep Mode (Typ) (μA)	EMI	Package	Automotive Grade AEC-Q100
BD41000AFJ-C	JASO_D015_3	7 to 18	-40 to +125	-27 to +40	5 to 20	3	—	SOPJ-8	YES
BD41001FJ-C	JASO_D015_3	7 to 18	-40 to +125	-27 to +40	18.8 to 20.0	3	Improved against BD41000AFJ-C	SOPJ-8	YES

# PLC (Power Line Communication)

HD-PLC Inside Compliant Baseband IC											
Part No.	Supported Standards	Operating Frequency Band (MHz)	Supply Voltage (V)	Modulation Method	FEC Mode	Control I/F	Communication Speed (Mbps)	Transmission Output	Receiving Sensitivity	Operating Temperature (°C)	Package
BU82204MWV	HD-PLC inside	2 to 28	1.45 to 1.55/ 3.0 to 3.6	Wavelet OFDM	AES128	UART or SPI	up to 3	-10dBm/ 10kHz	-88dBm/ 10kHz	-40 to +85	UQFN88MV0100
Broadband Power Line Communication Baseband IC											
BU82205MWV	ROHM Original PLC	2 to 28	1.45 to 1.55/ 3.0 to 3.6	Wavelet OFDM	AES128	UART or SPI	up to 3	-10dBm/ 10kHz	-88dBm/ 10kHz	-40 to +85	UQFN88MV0100

# USB Type-C Power Delivery

For POWER SOURCE (POWER Role: Source, DATA Role: DFP, Internal Shunt Reg., Variable OCP, Variable OVP, Internal Vconn SW)											
Part No.	Supply Voltage (V)	IO Supply Voltage (V)	TYPE-C/PD Controller	Initial Supply Capable Voltage/Current (V/A)	Tolerant Voltage at CC Pins (V)	Gate Drivers for Nch FET	After OCP Behavior After OVP Behavior	DP Alternate Mode	Operating Temperature (°C)	Package	
BM92A20MWV	3.1 to 20.0	1.7 to 5.5	✓/✓ (Internal Shunt Reg. for AC/DC)	5/3, 12/3.75, 15/3, 16/2.8, 19/2.36, 19.6/2.29, 20/2.25	6.5	For Source: 1pair	OCP: Automatic recovery OVP: Automatic recovery	-	-30 to +105	UQFN40V5050A	
BM92A21MWV			5/3, 9/3, 12/3, 15/3, 20/3	UQFN40V5050A							
BM92A50MWV			5/0.5, 12 to 20 Variable/2.25	✓/✓						DP_SINK with Ext-MCU	UQFN40V5050A
For POWER SOURCE & SINK (POWER Role: Source/Sink/DRP, DATA Role: DFP/UFP/DRD)											
Part No.	Supply Voltage (V)	IO Supply Voltage (V)	TYPE-C/PD Controller	Connected The Required Initial Voltage (V)		Gate Drivers for Nch FET	After OCP Behavior After OVP Behavior	DP Alternate Mode	Operating Temperature (°C)	Package	
				Dead Battery	Non Dead Battery						
BM92A30MWV	3.1 to 20.0	1.7 to 5.5	✓/✓	12 to 20 (It requires the maximum voltage had by the source side between 12V to 20V.) <sup>*1</sup>		5	For Sink: 1pair For Source: 1pair	DP_SOURCE	-30 to +105	UQFN40V5050A	
BM92A34MWV				9 (Power Delivery communication is contracted only for the stated voltage.) <sup>*1</sup>						UQFN40V5050A	
For POWER SINK (POWER Role: Sink, DATA Role: UFP)											
Part No.	Supply Voltage (V)	IO Supply Voltage (V)	TYPE-C/PD Controller	Connected The Required Initial Voltage (V) Without Ext-MCU		Start of Automatic Power Receiving Without Ext-MCU	Gate Drivers for Nch FET	DP Alternate Mode	Operating Temperature (°C)	Package	
BM92A12MWV	3.1 to 20.0	1.7 to 5.5	✓/✓	20 (Power Delivery communication is contracted only for the stated voltage.) <sup>*1</sup>		✓	For Sink: 1pair For Source: 1pair	-	-30 to +105	UQFN40V5050A	
BM92A13MWV				15 (Power Delivery communication is contracted only for the stated voltage.) <sup>*1</sup>						UQFN40V5050A	
BM92A14MWV				9 (Power Delivery communication is contracted only for the stated voltage.) <sup>*1</sup>						UQFN40V5050A	
BM92A15MWV				5 to 20 (It requires the maximum voltage had by the source side between 5V to 20V.) <sup>*1</sup>						UQFN40V5050A	
BM92A19MWV				5 (Power Delivery communication is contracted only for the stated voltage.) <sup>*1</sup>						UQFN40V5050A	
<b>New</b> BD91N01NUX	4.0 to 5.5		Type-C only	Type-C 5V			For Sink: 1path		-30 to +85	VSON010X3020	

<sup>\*1</sup> If communication is not contracted, source side supply 5V for type-C connected. That time, the control for external Nch-FET is not automatically turned on, so an instruction for FET control is required from other the IC.