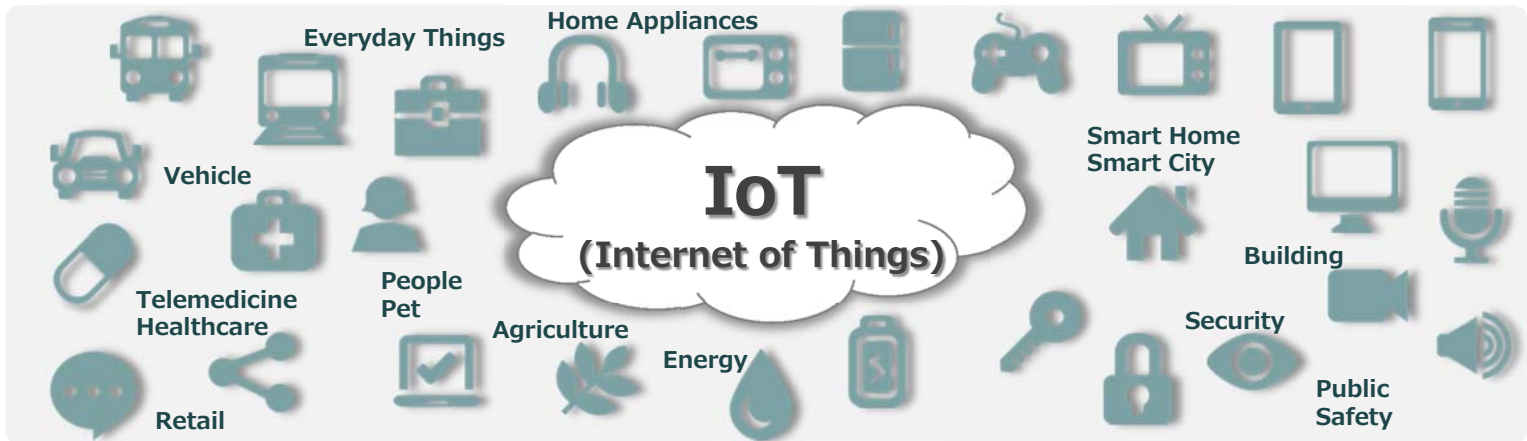


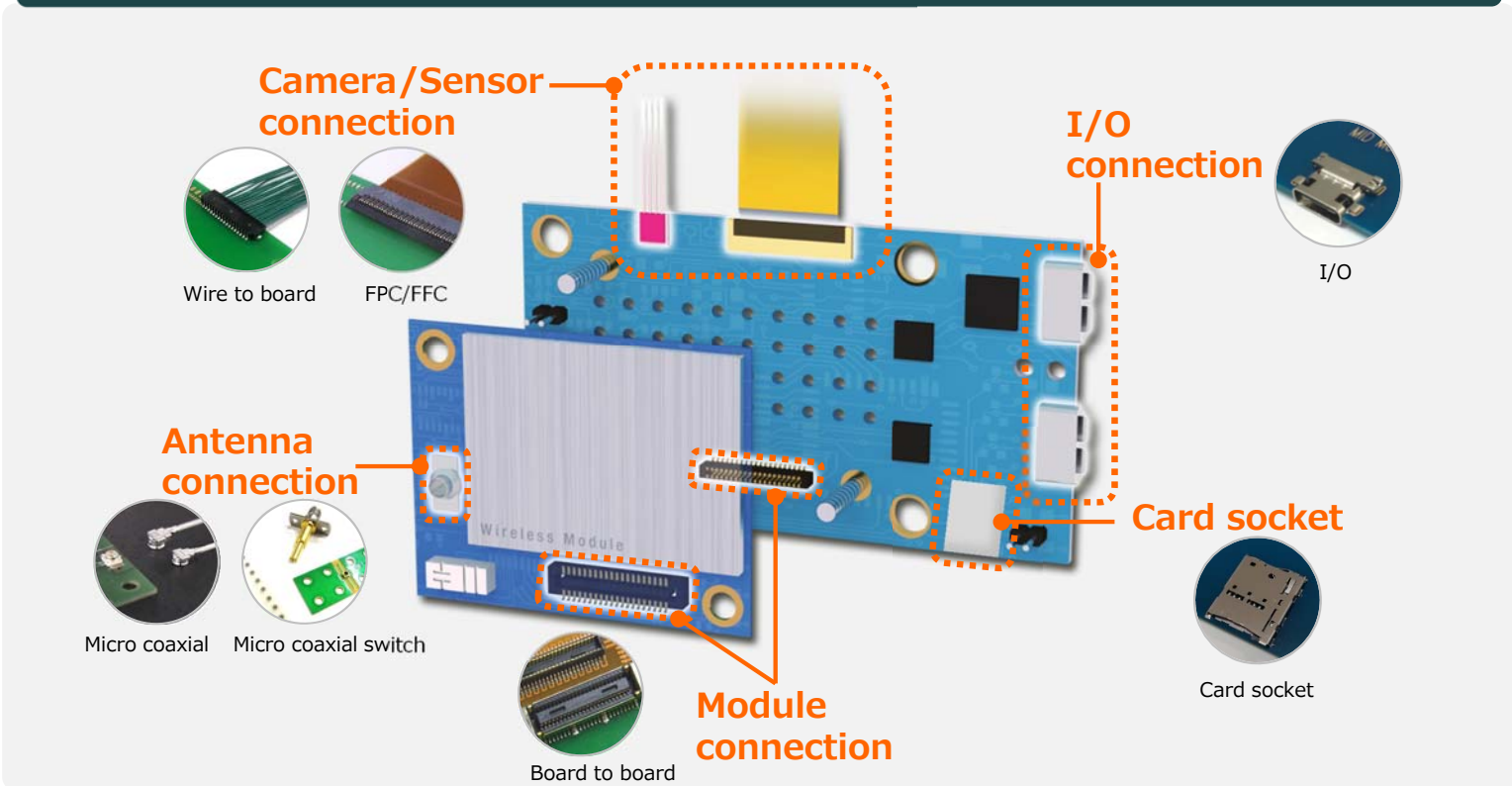


Connectors for IoT (Internet of Things) Devices

As all kinds of devices from consumer and industrial devices to devices for social infrastructure are being connected to the network, the Internet of Information is gradually shifting to Internet of Things (IoT). Total number of IoT devices is expected to reach 50 billion units by 2020. Hirose Electric provides a variety of products suitable to IoT devices. (See the product list on the back of this page.)



HRS Connectors for IoT module application



World Wide Sales Locations







[Japan]		TEL: +81-45-620-3491	[The Netherlands]	(Amsterdam)	TEL: +31-20-6557460
[China]	(Shanghai)	TEL: +86-21-6391-3355	[Germany]	(Stuttgart)	TEL: +49-711-456002-221
	(Beijing)	TEL: +86-10-5165-9332		(Nuremberg)	TEL: +49-911-326889-63
	(Shenzhen)	TEL: +86-755-8207-0851		(Hanover)	TEL: +49-511-978261-30
[Hong Kong]	(Kowloon)	TEL: +852-2803-5338	[France]	(Paris)	TEL: +33-1-85764886
[Taiwan]	(Taipei)	TEL: +886-2-2555-7377	[UK]	(Milton Keynes)	TEL: +44-1908-202050
[Korea]	(Siheung)	TEL: +82-31-496-7000			
[Singapore]	(Anson Road)	TEL: +65-6324-6113			
[India]	(Delhi)	TEL: +91-12-660-8018			
	(Bangalore)	TEL: +91-80-4120-1907			
[Malaysia]	(Penang)	TEL: +604-619-2564			
[Thailand]	(Bangkok)	TEL: +66-2-686-1255			
[USA]	(Chicago) (USA HQ)	TEL: +1-630-282-6700			
	(San Jose)	TEL: +1-408-253-9640			
	(Detroit) (Automotive)	TEL: +1-734-542-9963			

<https://www.hirose.com/>



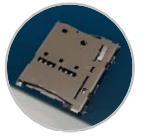
HRS Products for IoT Devices

▼ Module Connection





● Board to Board Connector			Pitch (mm)	Stacking Height (mm)	Depth (mm)	Pin Count	Max. Rated Current (A)	
			DF12	0.5	3.0, 3.5, 4.0, 5.0	4.6	10 to 80	0.3
			DF17	0.5	4.0 to 8.0	5.7	20 to 80	0.3
			DF37	0.4	0.98, 1.5	2.98	10 to 80	0.3
			DF40	0.4	1.5 to 4.0	3.38	10 to 100	0.3
			DF40G *1	0.4	1.5, 3.0	3.68	10 to 70	0.3
			BM24	0.35	0.8	2.3	10 to 40	5A for power 0.25A for signal

*1 Shielded connector supporting high speed transmission






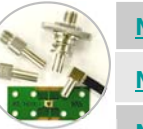
▼ Card socket

● Card socket				
				
DM3 Series				
Series	Height (mm)	Width (mm)	Depth (mm)	Mount type
DM3ND	1.25	13.4	15.3	SMT
DM3NS	1.25	13.4	15.3	DIP
DM3NW	1.15	13.4	15.2	SMT



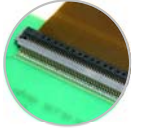
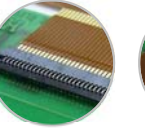
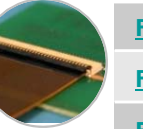
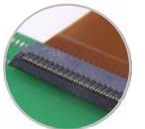
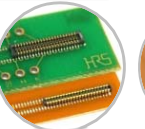
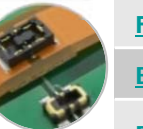
▼ I/O Connection

● I/O Connector	
 CX USB Type-C	 GX 0.4mm pitch Compact I/F Connector
 ZX Micro USB 2.0	 ZX360 Micro USB 3.0

▼ Antenna Connection

● Micro Coaxial Connector			Frequency (GHz)	Occupied Mounting Area (mm)	Max. Stacking Height (mm)	
			U.FL(A)	DC to 18	3.0 x 3.1	2.2
			W.FL/W.FL2(A)	DC to 12	2.0 x 2.0	1.65, 1.4 (W.FL) 1.18 (W.FL2(A))
			X.FL(V)	DC to 12	2.0 x 2.0	0.9
● Micro Coaxial Switch			Frequency (GHz)	Occupied Mounting Area (mm)	Max. Stacking Height (mm)	
			MS-156C3	DC to 11	2.3 x 2.3	1.35
			MS-180	DC to 11	1.8 x 1.8	0.85
			MS-162B	DC to 10	3.5 x 3.1	2.5

▼ Camera and Sensor Connection

● Wire to Board Connector			Pitch (mm)	Stacking Height (mm)	Depth (mm)	Pin Count	Max. Rated Current (A)	
			DF57H *1	1.2	1.4	4.65	2-6	2.5
			DF50	1.0	7.35 *2 9.0 *3	8.78 *2 8.96 *3	20-50	1
			DF52	0.8	1.75	4.1	2-20	2.5
● FPC/FFC Connector			Pitch (mm)	Stacking Height (mm)	Depth (mm)	Pin Count	Max. Rated Current (A)	
			FH52	0.5/1.0	2.0	5.7	4-68	0.5
			FH34SRJ	0.5	1.0	3.2	4-50	0.5
			FH19SC	0.5	0.9	3.0	13-34	0.5
			FH35C	0.3	0.9	3.2	9-61	0.2
			BM14	0.4	0.8/1.3	1.98	10-80	0.3
			BM22	-	0.9	2.64	4-6	4 for power 0.3 for signal

*Specifications herein are subject to change without notice. Contact Hirose for latest specifications and details.