

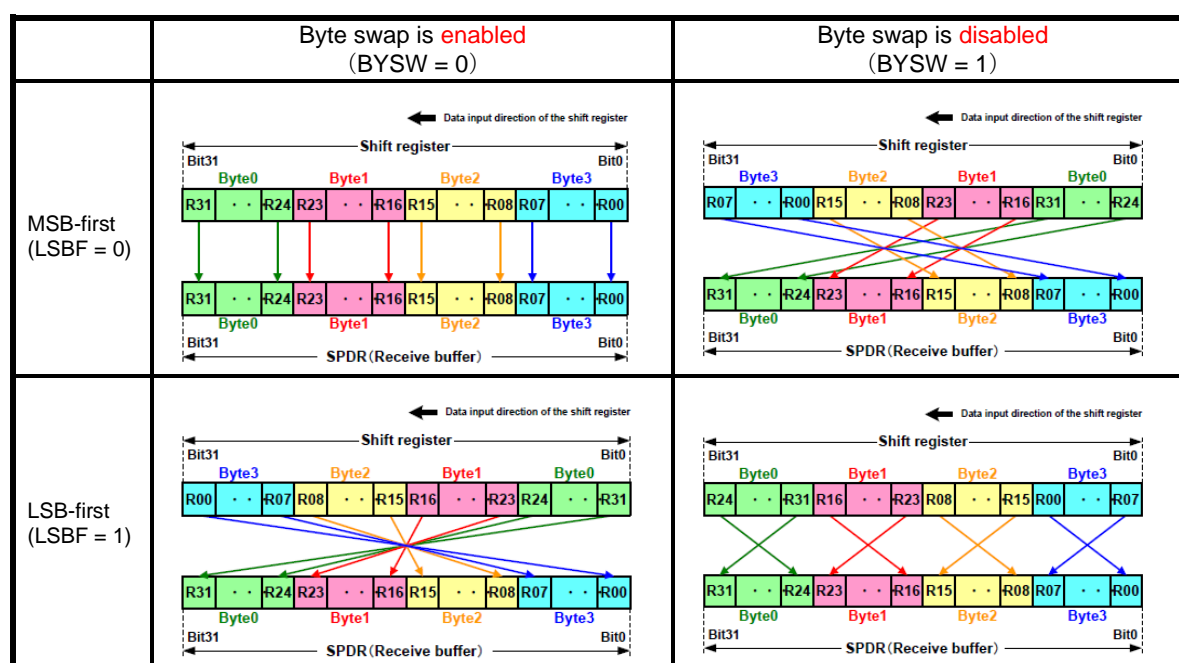
# RENESAS TECHNICAL UPDATE

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Renesas Electronics Corporation

Product Category	MPU/MCU	Document No.	TN-RA*-A0092A/E	Rev.	1.00
Title	Correction of SPI Byte swap function		Information Category	Technical Notification	
Applicable Product	RA6E1 Group, RA6T2 Group, RA6T3 Group, RA4E1 Group, RA4T1 Group	Lot No.	Reference Document	Refer table at the end of this document	
		All			

The descriptions regarding SPI Byte Swap Function are corrected as follows,

## [Before Correction]



- Note:
1. When using the byte swap, set 16 bits or 32 bits to the data length (SPCMD.SPB[3:0] setting). If setting the other length (8 to 15, 20, 24 bits), the behavior is not guaranteed.
  2. When the byte swap is valid, set the parity function as invalid (SPCR2.SPPE bit = 0). If setting the parity function as valid (SPPE bit = 1), the behavior is not guaranteed.
  3. Set SPDCR2.BYSW bit, when SPCR.SPE bit is 0. If rewriting BYSW bit, when SPE bit is 1, the behavior after it is not guaranteed.

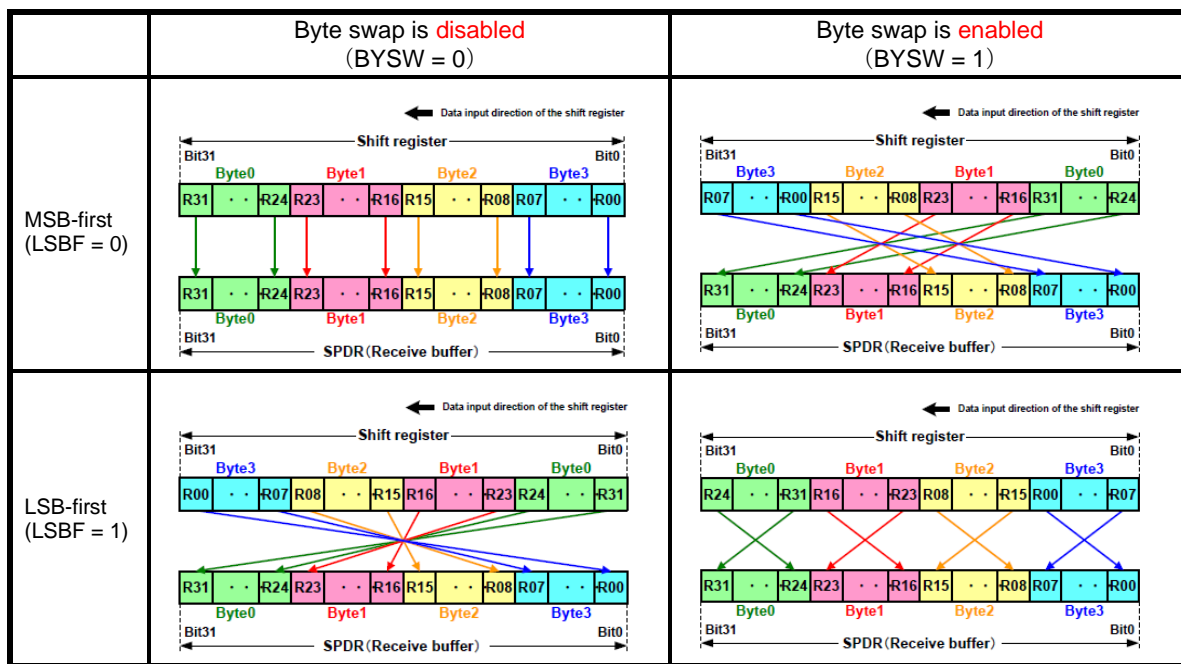
Figure 32.23 Byte swap with MSB/LSB transfer (For RA6E1)

Figure 29.23 Byte swap with MSB/LSB transfer (For RA6T3)

Figure 30.23 Byte swap with MSB/LSB transfer (For RA4E1)

Figure 28.23 Byte swap with MSB/LSB transfer (For RA4T1)

[After Correction]



- Note:
1. When using the byte swap, set 16 bits or 32 bits to the data length (SPCMD.SPB[3:0] setting). If setting the other length (8 to 15, 20, 24 bits), the behavior is not guaranteed.
  2. When the byte swap is valid, set the parity function as invalid (SPCR2.SPPE bit = 0). If setting the parity function as valid (SPPE bit = 1), the behavior is not guaranteed.
  3. Set SPDCR2.BYSW bit, when SPCR.SPE bit is 0. If rewriting BYSW bit, when SPE bit is 1, the behavior after it is not guaranteed.

Figure 32.23 Byte swap with MSB/LSB transfer (For RA6E1)  
 Figure 29.23 Byte swap with MSB/LSB transfer (For RA6T3)  
 Figure 30.23 Byte swap with MSB/LSB transfer (For RA4E1)  
 Figure 28.23 Byte swap with MSB/LSB transfer (For RA4T1)

[Before Correction]

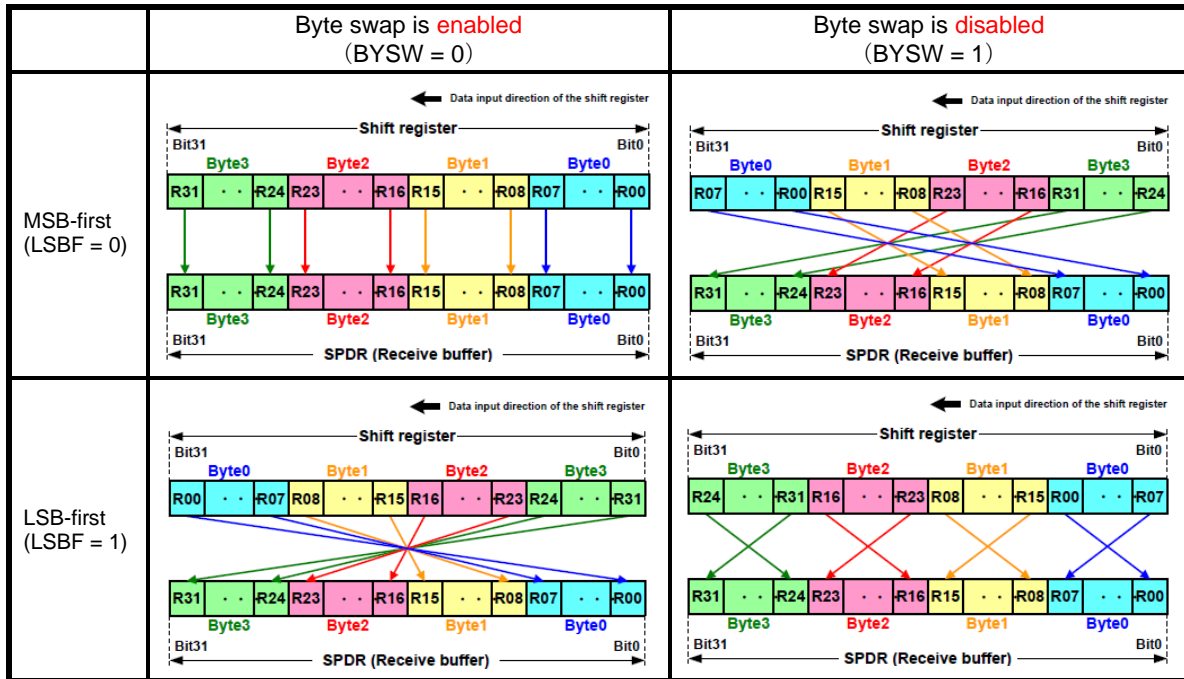


Figure 30.25 Byte swap with MSB/LSB transfer (32bit) (For RA6T2)

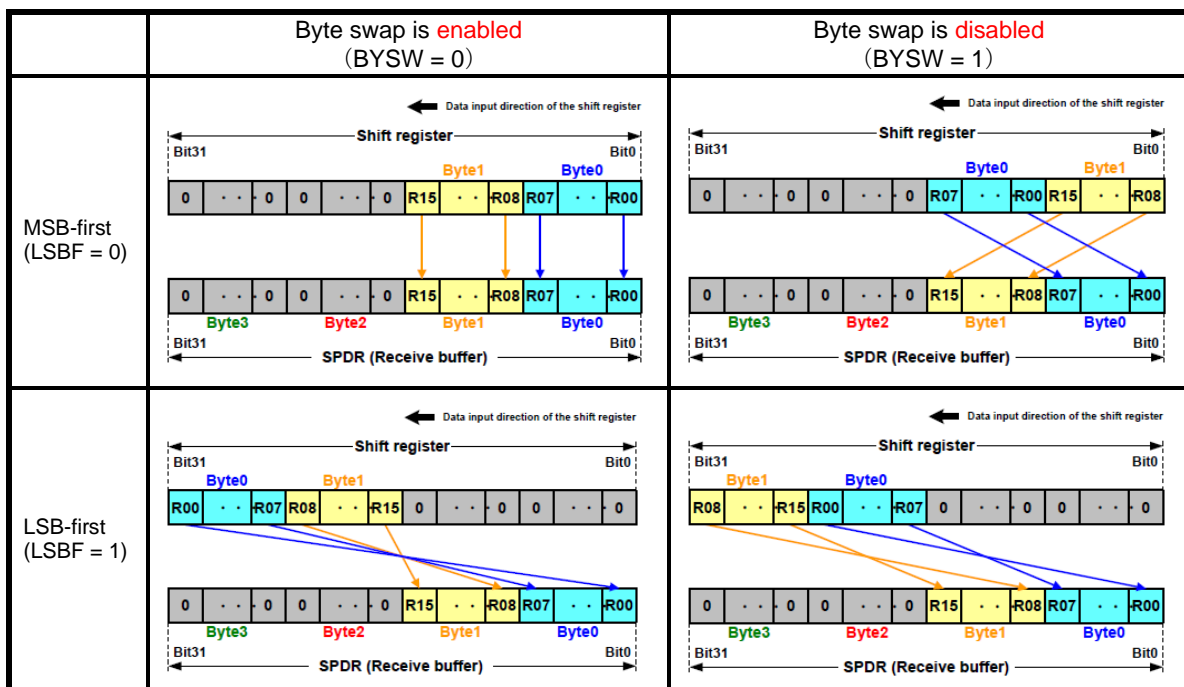


Figure 30.26 Byte swap with MSB/LSB transfer (16bit) (For RA6T2)

[After Correction]

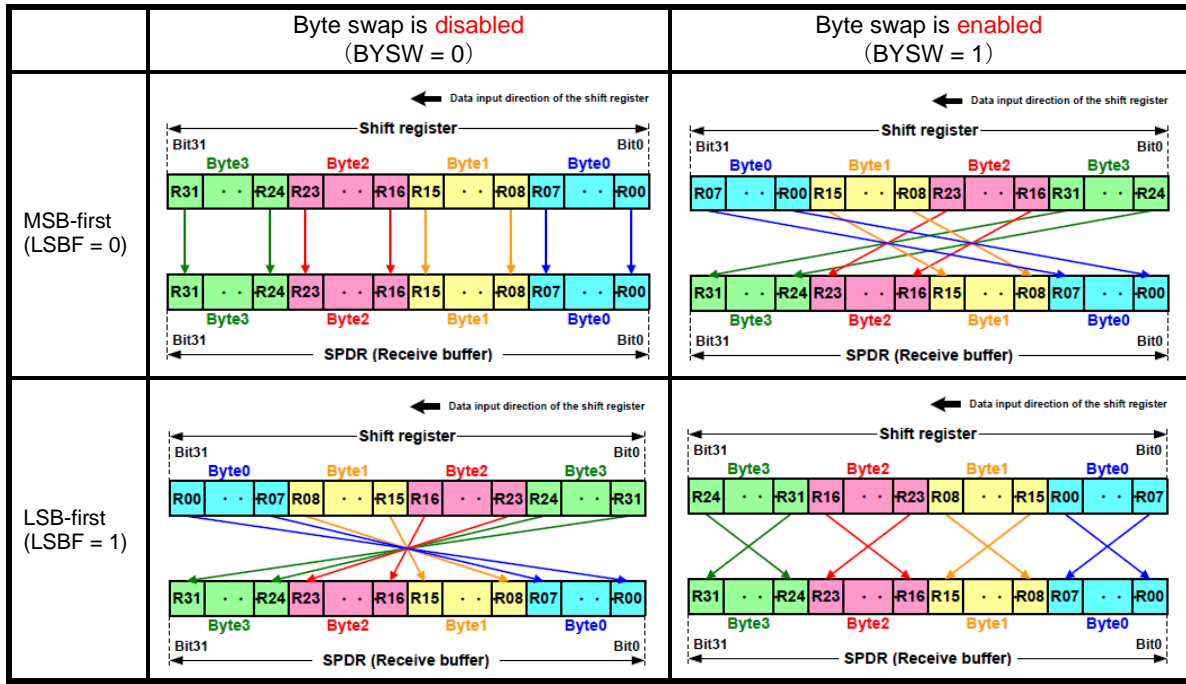


Figure 30.25 Byte swap with MSB/LSB transfer (32bit) (For RA6T2)

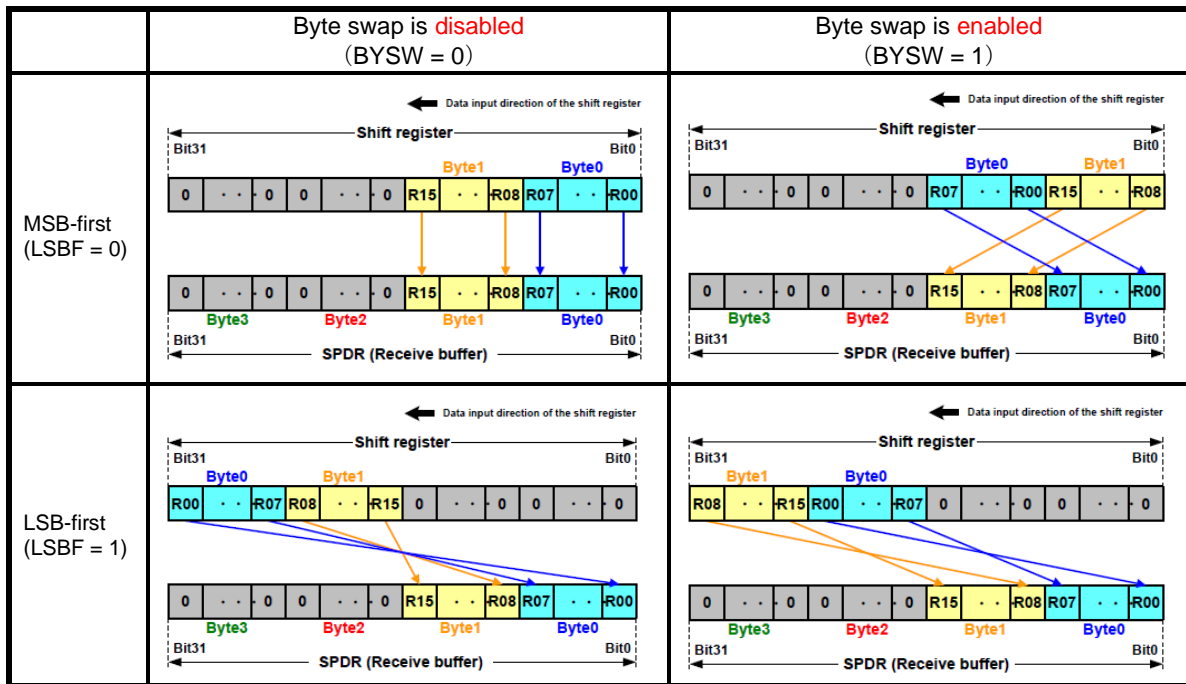


Figure 30.26 Byte swap with MSB/LSB transfer(16bit) (For RA6T2)

**Reference Document Table**

Product	Document name
RA6E1 Group	Renesas RA6E1 Group User's Manual: Hardware Rev.1.10
RA6T2 Group	Renesas RA6T2 Group User's Manual: Hardware Rev.1.30
RA6T3 Group	Renesas RA6T3 Group User's Manual: Hardware Rev.1.10
RA4E1 Group	Renesas RA4E1 Group User's Manual: Hardware Rev.1.10
RA4T1 Group	Renesas RA4T1 Group User's Manual: Hardware Rev.1.10