

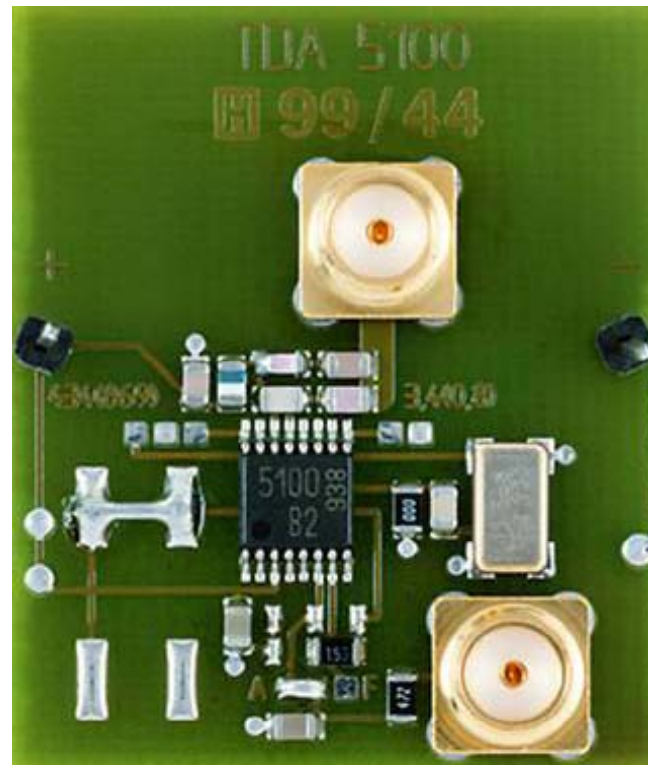
Information Note

Converting Evaluation Boards from FSK to ASK



Never stop thinking

1: Transmitter Evaluation Boards

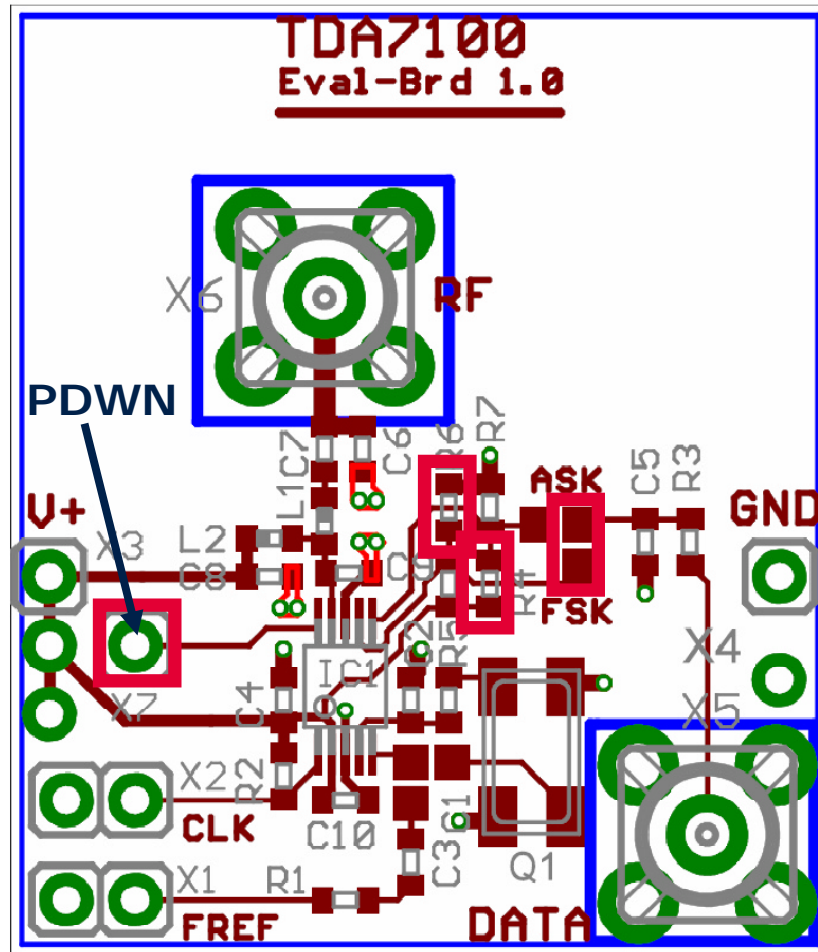


TDA71xx and TDK51xx Transmitter boards Conversion from FSK to ASK



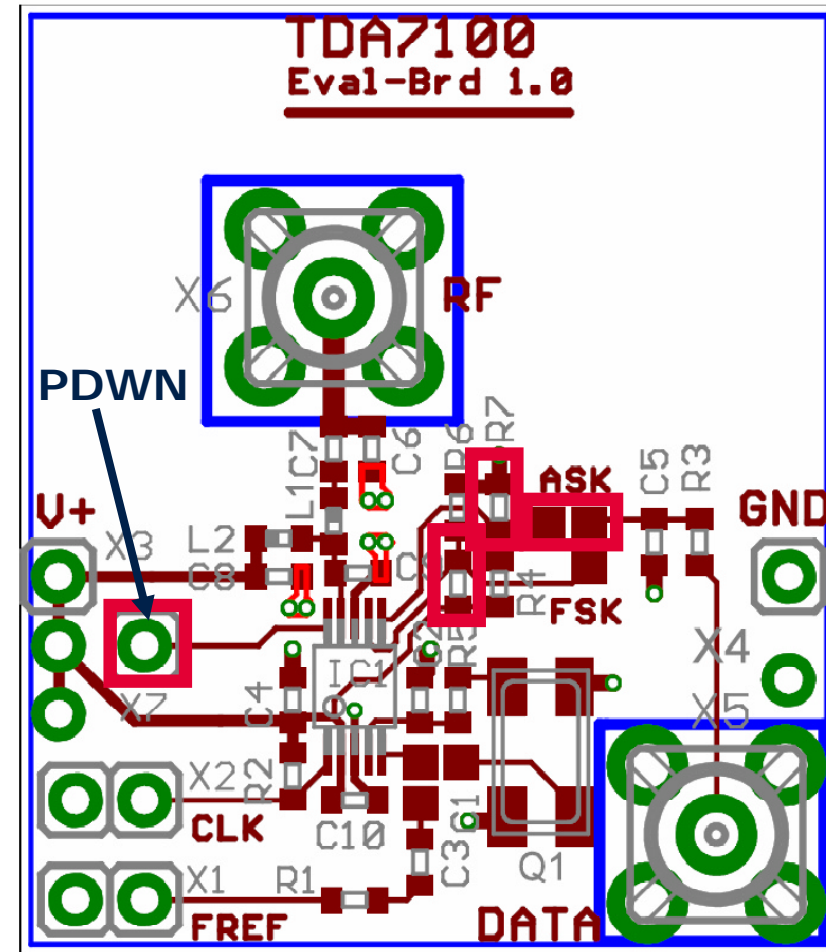
- The TDA71xx and TDA51xx Transmitter evaluation boards are configured for FSK operation as default.
- This document describes how to modify these boards to operate in ASK mode.
- Failure to follow this procedure could result in performance that does not meet the regulatory requirements (ETSI, FCC, etc).
- For further information please see the relevant product Data Sheet

TDA71xx(F) and TDK51xx(F) Transmitter boards Conversion from FSK to ASK (TSSOP-10 devices)



FSK Configuration (default)

Link (JP2) = FSK
R4=12K, R5=open,
R6=15K, R7=open



ASK Configuration

Link (JP2) = ASK
R4=open, R5=12K,
R6=open, R7=15K

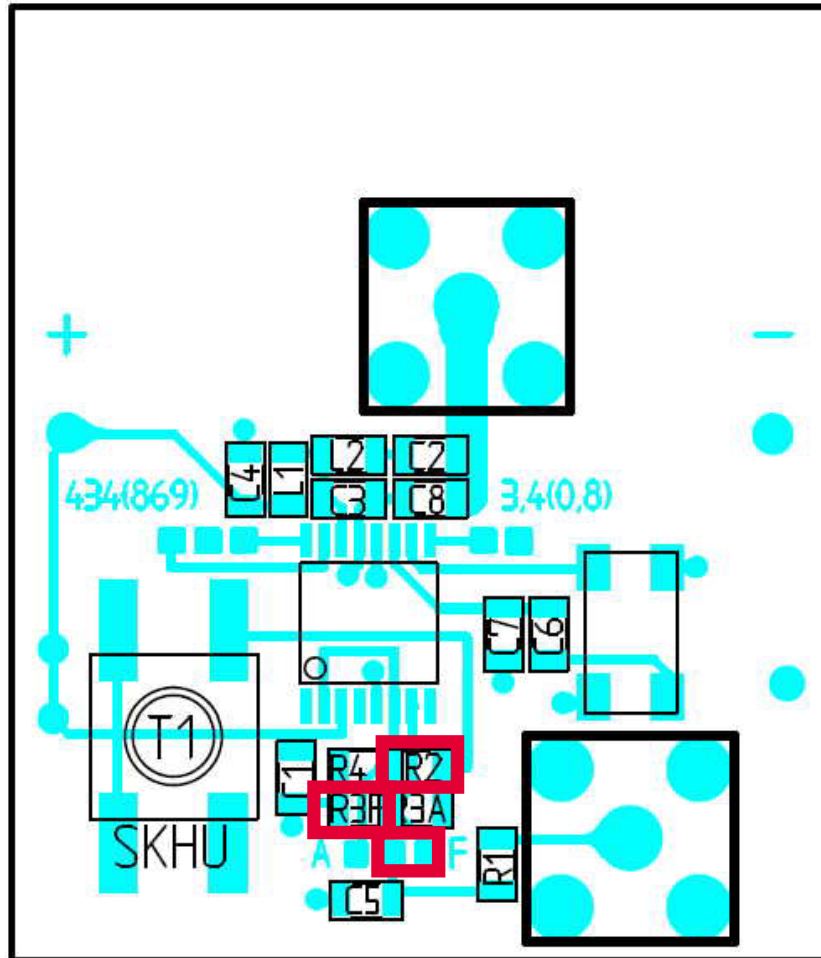
TDA71xx(F) and TDK51xx(F) Transmitter boards Conversion from FSK to ASK (TSSOP-10 devices)



- Once converted for ASK operation the centre frequency will be at the original FSK+ Frequency (FSK high = FSK Switch Open).
- If this is not acceptable change the Crystal load capacitor values as shown in the table below :-

	ASK		FSK		
	315MHz	434/868MHz	315MHz	434MHz	868MHz
C1	8.2pF	6.8pF	15pF	10pF	8.2pF
C2	0 ohm	0 ohm	6.8pF	6.8pF	15pF

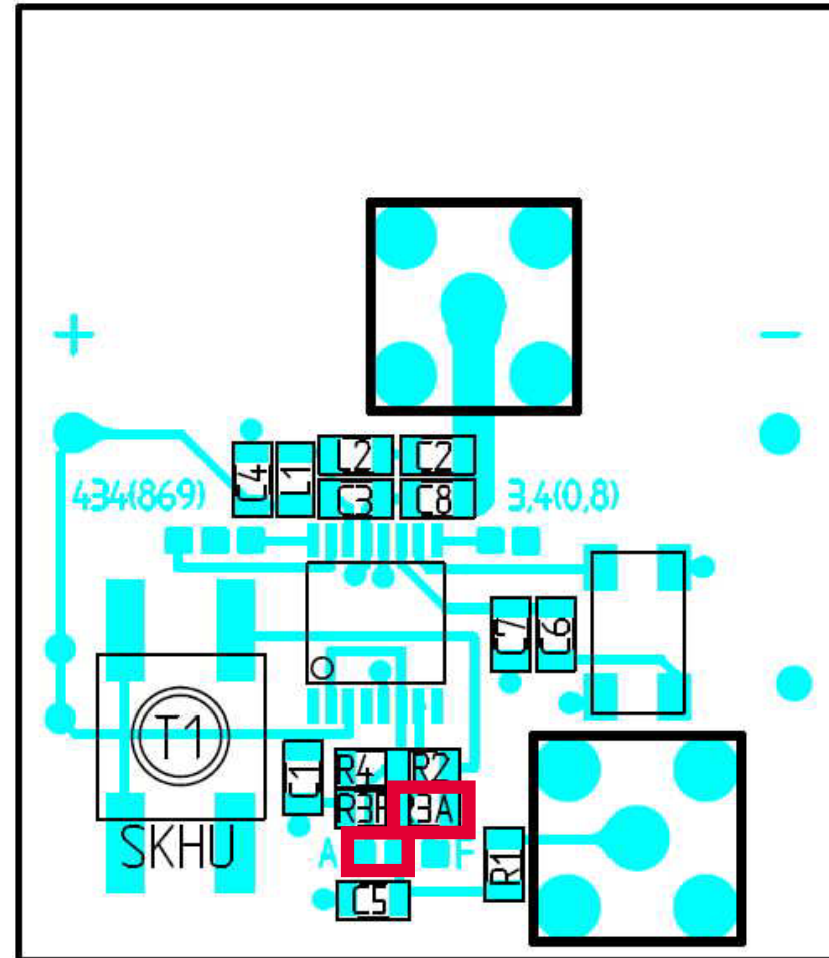
TDA71xx and TDK51xx Transmitter boards Conversion from FSK to ASK (TSSOP-16 devices)



FSK Configuration (default)

Link = FSK (to RHS)

R2=12K, R4=open,
R3F=12K, R3A=open



ASK Configuration

Link = ASK (to LHS)

R2=open, R4=open,
R3F=open, R3A=15K

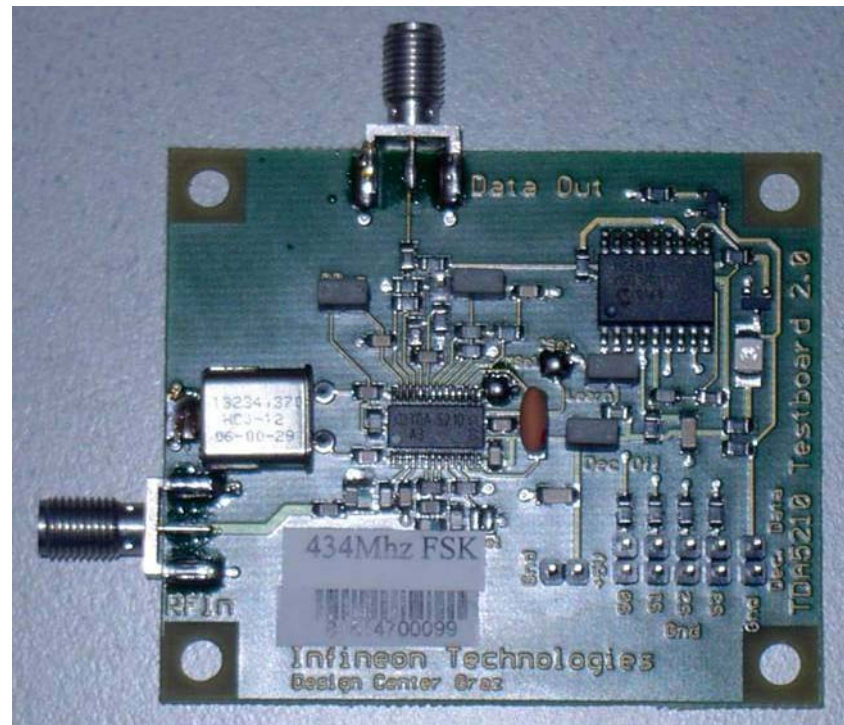
TDA71xx and TDK51xx Transmitter boards Conversion from FSK to ASK (TSSOP-16 devices)



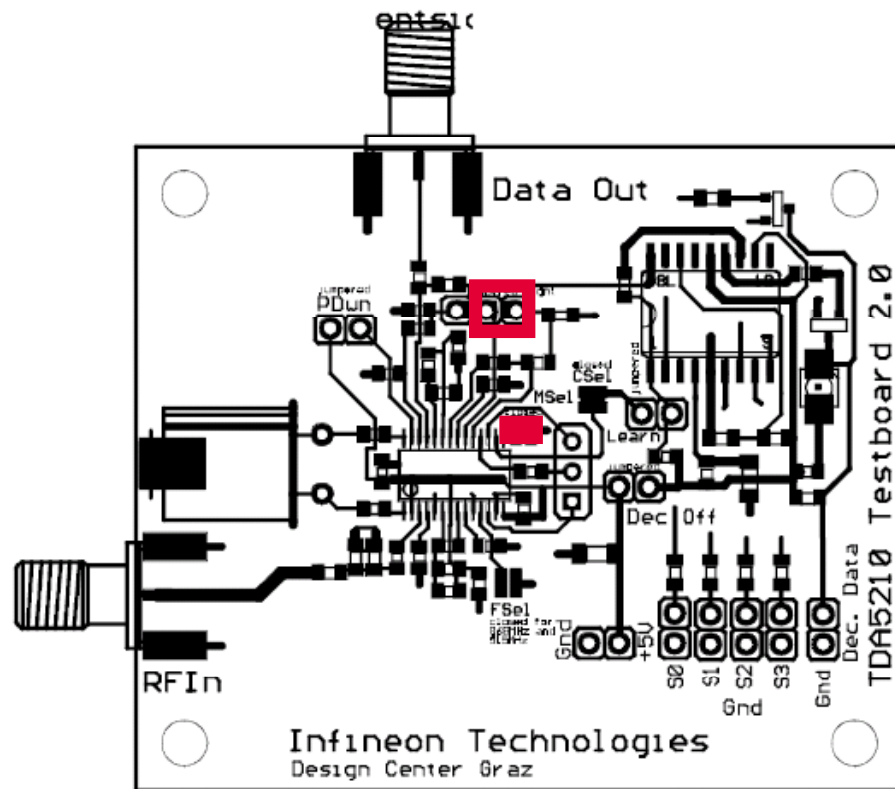
- Once converted for ASK operation the centre frequency will be at the original FSK+ Frequency (FSK high = FSK Switch Open).
- If this is not acceptable change the Crystal load capacitor values as shown in the table below :-

	ASK		FSK		
	315MHz	434/868MHz	315MHz	434MHz	868MHz
C6	8.2pF	6.8pF	15pF	10pF	8.2pF
C7	0 ohm	0 ohm	6.8pF	6.8pF	15pF

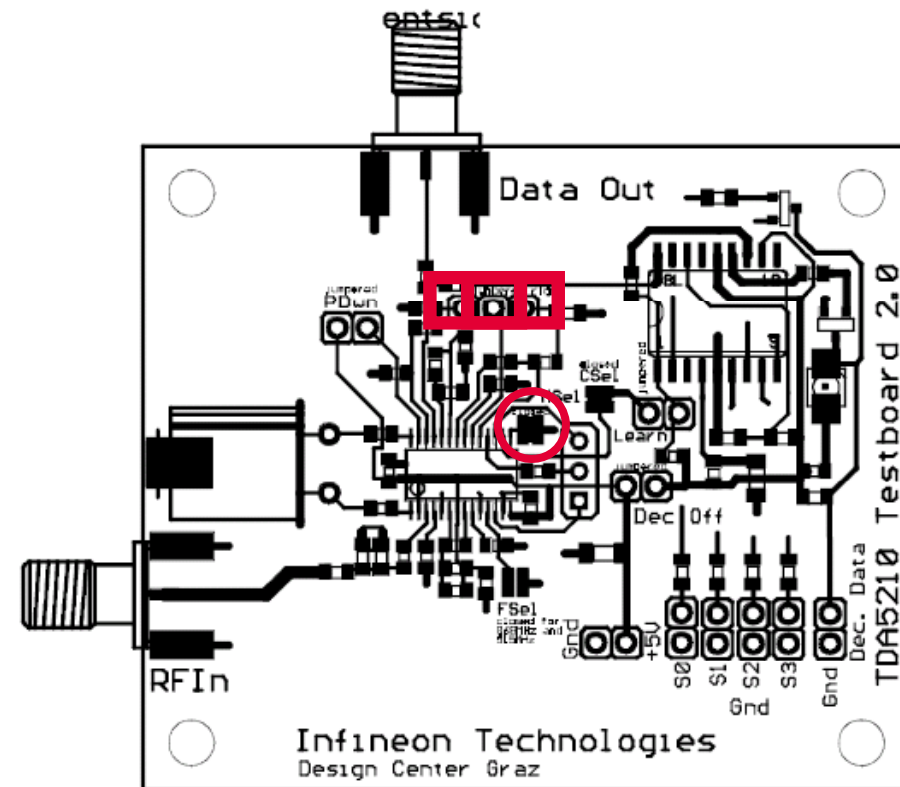
2: Receiver Evaluation Boards



TDA5210 and TDA7210 Receiver boards Conversion from FSK to ASK

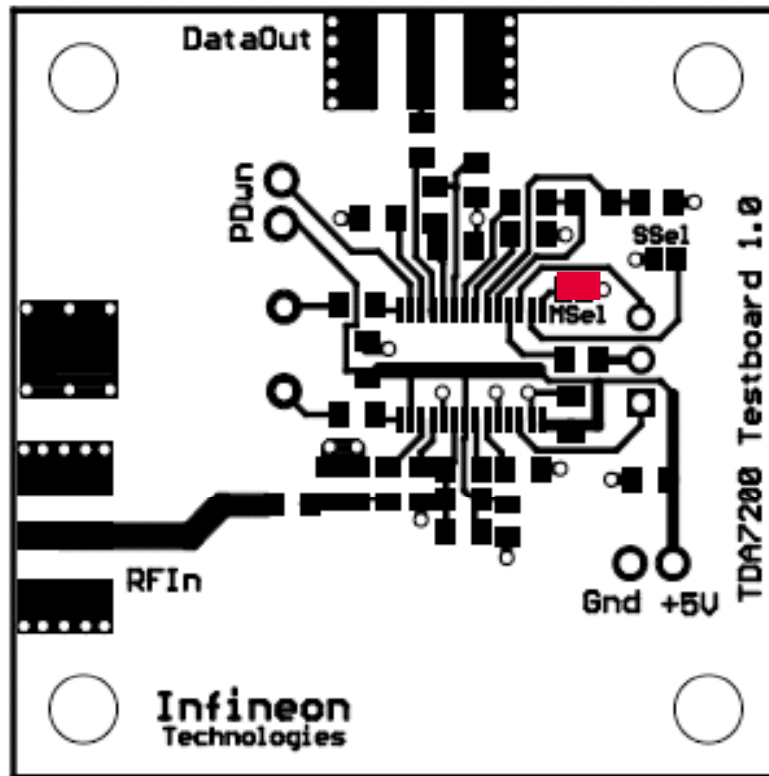


FSK Configuration (default)
MSEL link SHORT (Gnd)
Data Slicer link = RC Integrator
(Mandatory for FSK)

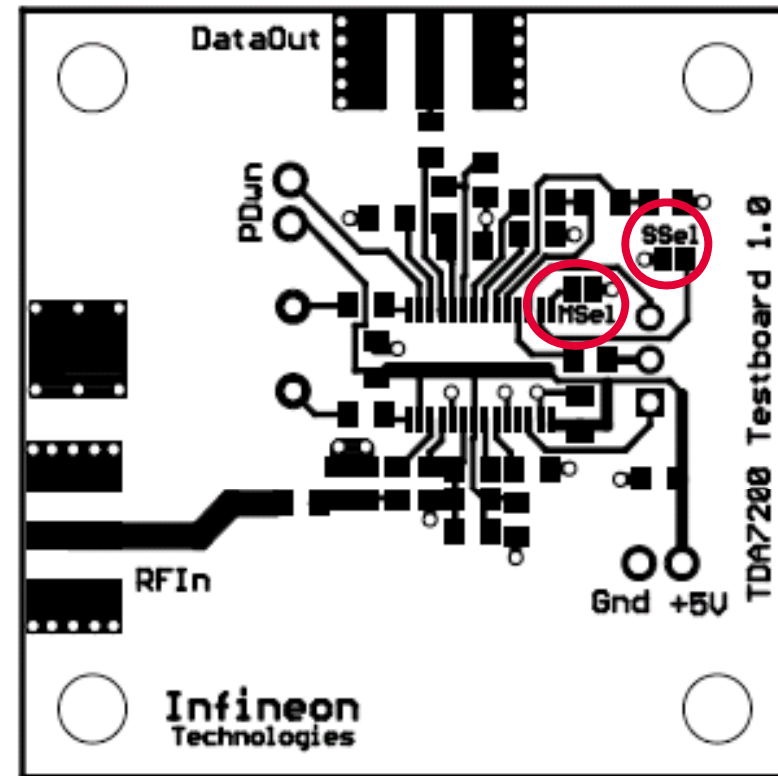


ASK Configuration
MSEL link OPEN
Data Slicer link = Peak or RC Int
(both options possible for ASK)

TDA5220 and TDA7200 Receiver boards Conversion from FSK to ASK



FSK Configuration (default)
MSEL link SHORT (Gnd)
SSEL link = n/a
(Fixed to Ext RC Int in FSK)



ASK Configuration
MSEL link= OPEN
SSEL link = Open for Ext RC Int
SHORT for Peak Det

Receiver boards (General)

- For details on data slicer operation see “Data Slicer Threshold Generation” section in data sheet.
- Data filter is set for cut off frequency of 5KHz as default. Refer to Data Sheet or Applications notes on details of how to change this value.



We commit.

We innovate.

We partner.

We create value.



Never stop thinking