iC-MFP EVAL MFP1D
EVALUATION BOARD DESCRIPTION

preliminary

ORDERING INFORMATION

Type	Order Designation	Description Options
Evaluation Board	iC-MFP EVAL MFP1D	Evaluation Board iC-MFP Ready-to-operate, pin-configurable, with onboard P-FET

BOARD MFP1D

(size 100 mm x 80 mm)

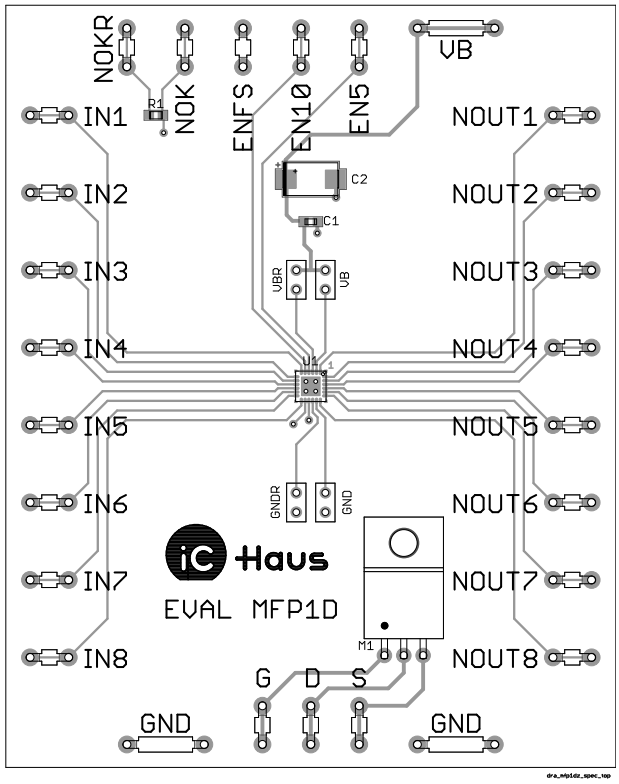

Figure 1: Component side

TERMINAL	DESCRIPTION
VB	VB Supply Voltage
VBR	VBR Supply Voltage (Reference)
GND	0 V Ground
GNDR	0 V Ground (Reference)
IN1	Signal Input 1
IN2	Signal Input 2
IN3	Signal Input 3
IN4	Signal Input 4
IN5	Signal Input 5
IN6	Signal Input 6
IN7	Signal Input 7
IN8	Signal Input 8
OUT1	Output 1
OUT2	Output 2
OUT3	Output 3
OUT4	Output 4
OUT5	Output 5
OUT6	Output 6
OUT7	Output 7
OUT8	Output 8
NOK	Output NOK
NOKR	Pull Resistor Supply NOK
EN5	Enable Input 5V
EN10	Enable Input 10V
ENFS	Enable Input Full Scale
G	Evaluation FET Gate
D	Evaluation FET Drain
S	Evaluation FET Source

CONNECTOR AND TERMINAL PINOUT

Input Connector

Name	Function
IN1	Input Channel 1
IN2	Input Channel 2
IN3	Input Channel 3
IN4	Input Channel 4
IN5	Input Channel 5
IN6	Input Channel 6
IN7	Input Channel 7
IN8	Input Channel 8

Output Connector

Name	Function
OUT1	Output Channel 1
OUT2	Output Channel 2
OUT3	Output Channel 3
OUT4	Output Channel 4
OUT5	Output Channel 5
OUT6	Output Channel 6
OUT7	Output Channel 7
OUT8	Output Channel 8

Safe Power Supply

Name	Function
VB	Power Supply Input
GND	Ground

Enable Input

Name	Function
EN5	Enable 5V Output Level
EN10	Enable 10V Output Level
ENFS	Enable Full Scale Output Level

Enable Input

Name	Function
NOK	Error Output, low active, Open Collector
NOKR	Pull Up Resistor Supply for NOK Pin

Evaluation FET

Name	Function
G	Gate Connector
D	Drain Connector
S	Source Connector

CIRCUIT DESCRIPTION

The MFP1D evaluation board is equipped with the iC-MFP 8-Channel Fail-Safe FET Driver IC. The board features connectors for each IC pin and an evaluation FET for direct use. Power supply failures are directly testable by jumper removal.

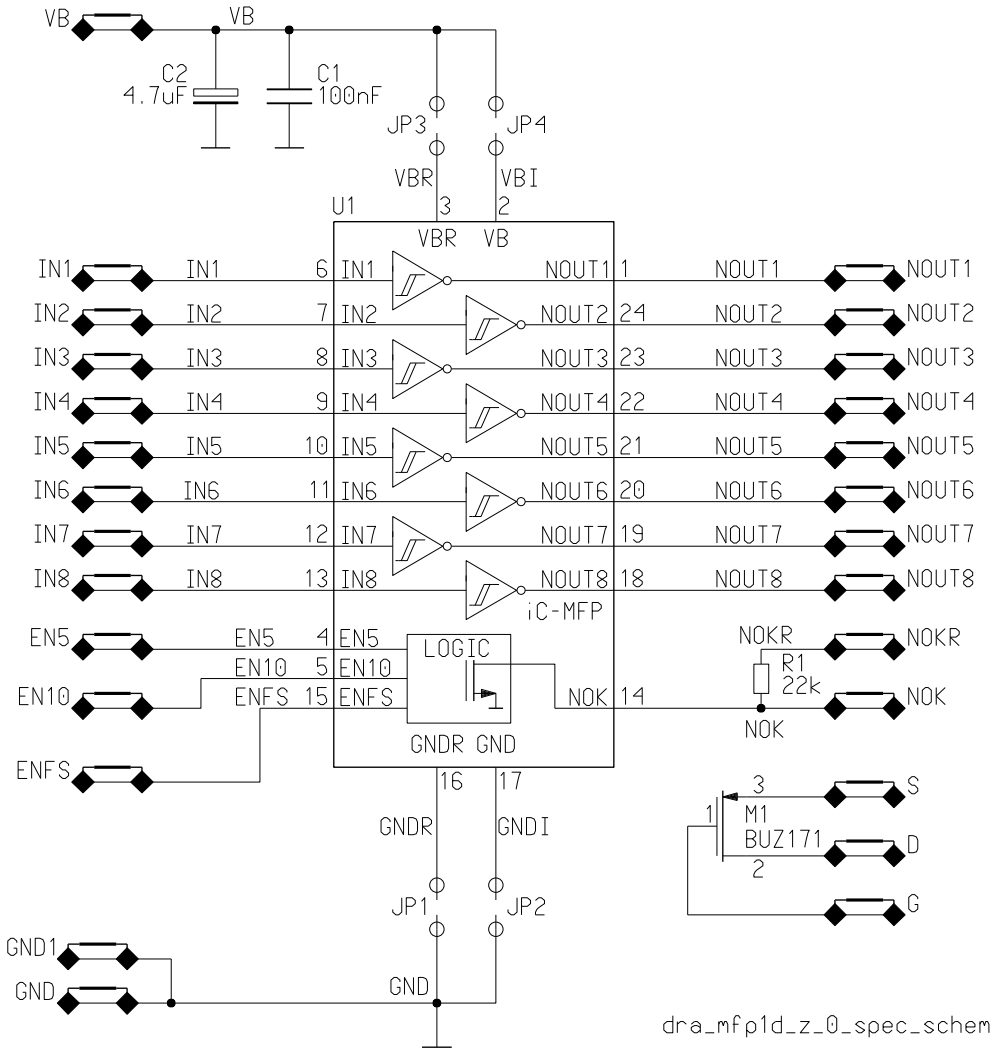

Figure 2: Circuit diagram including FET

JUMPER DESCRIPTION

Closed Jumper	Comments
JP1	VB Power Supply to VBR (Reference) (shipment setup)
JP2	VB Power Supply to VB (shipment setup)
JP3	Ground Connectivity to GNDR (Reference) (shipment setup)
JP4	Ground Connectivity to GND (shipment setup)

ASSEMBLY PART LIST

Device	Value (typical)	Comment
U1	iC-MFP QFN24	8-Channel Fail-Safe P-FET Driver
M1	BUZ 171 TO220	P-FET
C1	4.7 µF	Supply Backup Capacitor
C2	100 nF	Supply Backup Capacitor
JP1, JP2, JP3, JP4	SL LP1 097 2 G	Jumper

REVISION HISTORY

Rel.	Rel. Date*	Chapter	Modification	Page
A1	2017-05-26	All	Initial Release	all

* Release Date format: *YYYY-MM-DD*