

KEY FEATURES

- > Magnetic Fast Steering Mirror (FSM) standalone drive electronics
- > Closed loop position feedback controller

RELATED PRODUCTS

- > M-FSM Fast Steering Mirror family
- > ECS45 Eddy Current position sensors conditioner

ANNOTATIONS

Guaranteed in labs environment

(1) Depending on the output voltage - See Graph

(2) Depending on the active load - See Graph



PARAMETER	VALUE	UNIT
> General		
Function	All-in-one magnetic driver and controller	
Number of channel	2	
Digital communication	RS422, USB	
> Digital control		
Processor	Floating-point microcontroller	
Control strategy	Dedicated control for magnetic mechanism	
Sampling rate	100	kSps
Digital resolution	16	bits
> Input		
Number of analog inputs	2	
Control input voltage (Vin+ - Vin-)	-10 ... +10	V
Control input impedance	10	kΩ
> Output		
Output voltage (with main supply)	up to ±11	V
Output voltage (with optional supply)	±2 ... ±32	V
Continuous output current ⁽¹⁾	±1	A
Output current offset	<5	mA
Maximum output load	Unlimited	H
Minimum output load	0	μH
> Power supply		
DC main supply voltage	15	Vdc
DC optional supply voltage	±6 ... ±36	Vdc
Max. Input current (both input)	2.5	Adc
> Power amplifier		
Number of channels	2	
Max. continuous output apparent power	64	VA
Max. continuous output active power ⁽¹⁾	64max (2 x 32max)	W

PARAMETER	VALUE	UNIT
> Gain		
Gain	0.1	A/V
Gain error	±2	%
Gain linearity error	<0.1	%
> Dynamic performance		
Small signal bandwidth (-3dB)	(2)	kHz
> Protections		
Protections	Reverse Polarity, Current Limitation (Amplifier), Overtemperature (Amplifier)	
Current limitation per channel	1.25	A
Overtemperature	100	°C
> Miscellaneous		
Mass	1.46	kg
Dimensions	200x151x81	mm3
Cooling	Natural convection	
Operating temperature range	0 ... 40	°C
Storage temperature range	-10 ... 70	°C
> Interfaces		
Control Input	DSUB9 Female connector (analog), USB (digital)	
Main power input connector	3 643 power jack (Adafruit Industries)	
Optional power input connector	MC 1.5/ 3-GF-3.5 (Phoenix Contact)	
Mechanism output connector	DSUB9 Female connector	
> Included Accessories		
Main power supply	ACM36US15 (XP Power)	
Optional power input mating connector	MC 1.5/3-STF-3.5 (Phoenix Contact)	

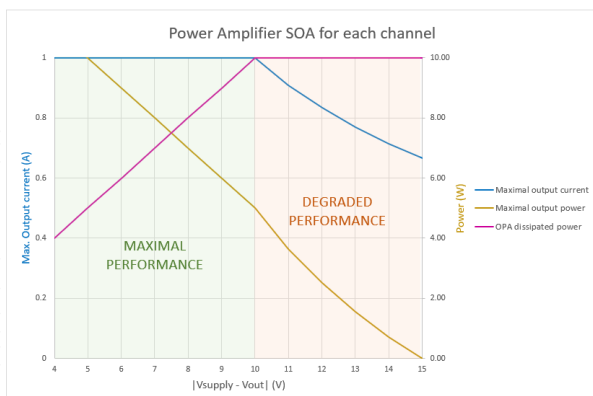


Fig. 1: Safe Operating Area (SOA) for Main Supply

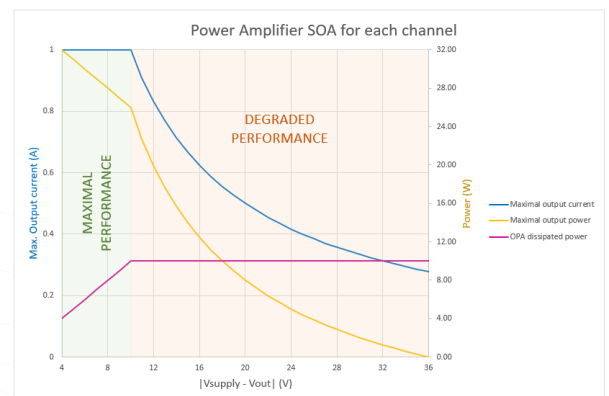


Fig. 2: Safe Operating Area (SOA) for Optional Power Supplies

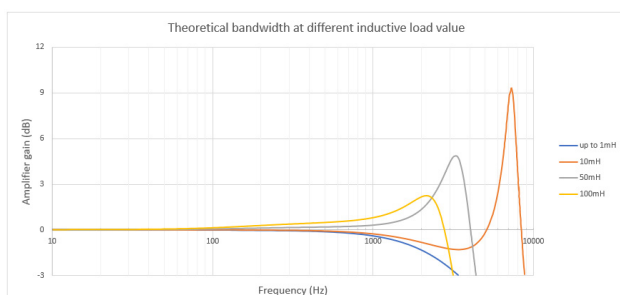


Fig. 3: Theoretical Bandwidth of Power amplifier

