

# BroadR-Reach® integrated Low pass filter and ESD protection



## OPEN Alliance -compliant automotive-grade integrated low-pass filter and ESD protection for BroadR-Reach® interfaces

The EMIF02-02OABRY is an AEC-Q101-qualified ASIP integrating a dual-line EMI filter and dual-line high-speed ESD protection.

While previous filtering solutions were 30 mm<sup>2</sup>, the EMIF02-02OABRY supports the same functions in only 9 mm<sup>2</sup>.

With support for Automated Optical Inspection thanks to its wettable flanks, this highly integrated solution offers features such as a return loss of -20 dB up to 60 MHz, 1% component matching and 15 kV robustness over a wide temperature range (-40 to 125 °C).

### KEY APPLICATION

- Advanced Driver Assistance System (rear view camera, bird's eye view vision, etc.)
- Infotainment (in-seat multimedia screen, central display, cameras, etc.)
- Industrial applications (factory automation)

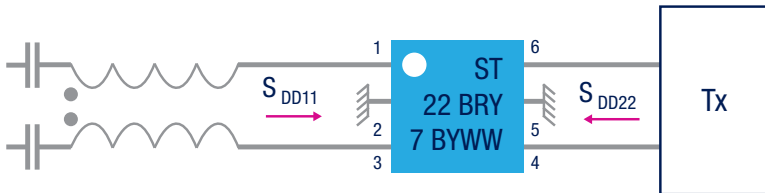
### KEY FEATURES

- AEC-Q101 compliant
- Dual-line device
- ISO 10605 compliant: 15 kV (contact discharge)
- Attenuation profile compliant with OPEN Alliance requirements from -40 to 125 °C
- Return loss at 60 MHz: -20 dB
- Smallest solution on the market in a 3 x 3 mm wettable flank QFN package

# ELECTRICAL PARAMETERS

Parameter	Conditions	Value	Unit
$V_{PP}$	ISO 10605 (330 $\Omega$ / 330 pF) External pins (pins 1 and 3)	15	kV
$S_{DD11}$ & $S_{DD22}$	from 10 MHz to 60 MHz, $T_j = -40^\circ\text{C}$ to $125^\circ\text{C}$	-20	dB
$S_{DC21}$ & $S_{CD21}$	from 10 MHz to 1 GHz, $T_j = -40^\circ\text{C}$ to $125^\circ\text{C}$	-55	dB

## WIRING

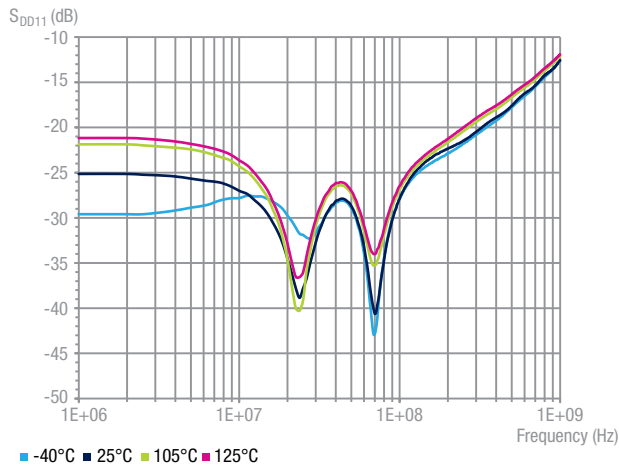


## PACKAGE DRAWING

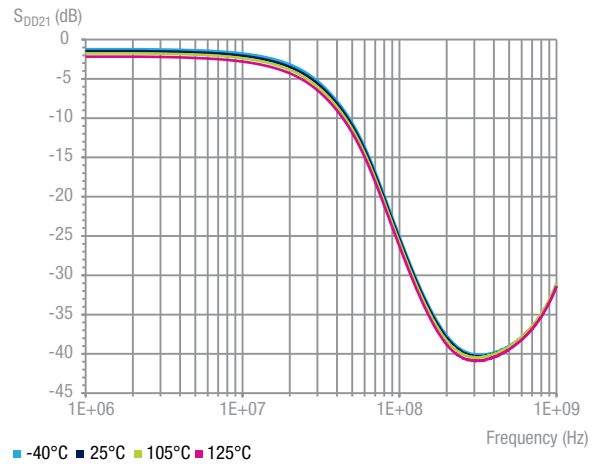


6-lead QFN  
3 x 3 x 1 mm  
1.1  $\mu\text{m}$  pitch

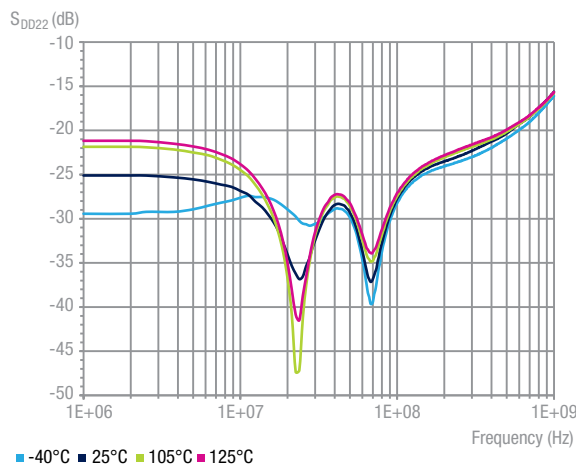
## $S_{DD11}$ VERSUS TEMPERATURE



## $S_{DD21}$ VERSUS TEMPERATURE



## $S_{DD22}$ VERSUS TEMPERATURE



[www.st.com/broadr-reach-filter-fl](http://www.st.com/broadr-reach-filter-fl)



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