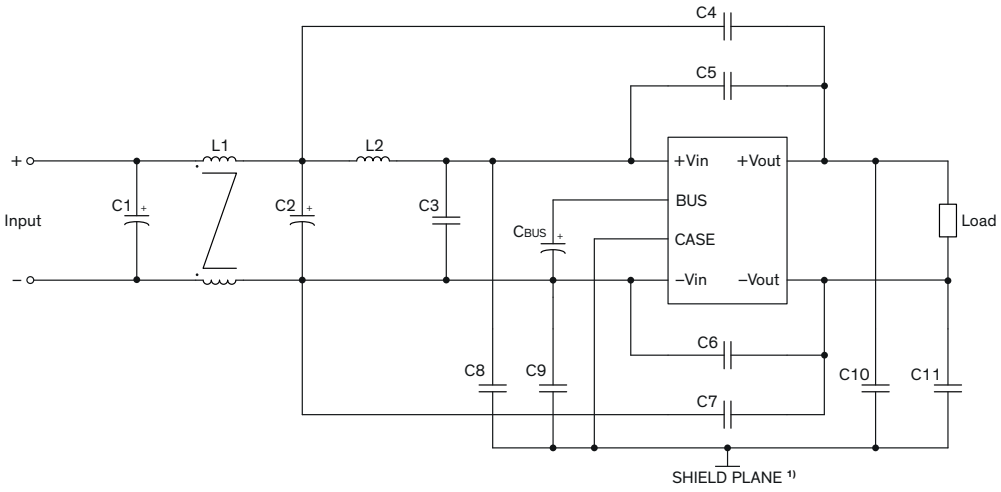
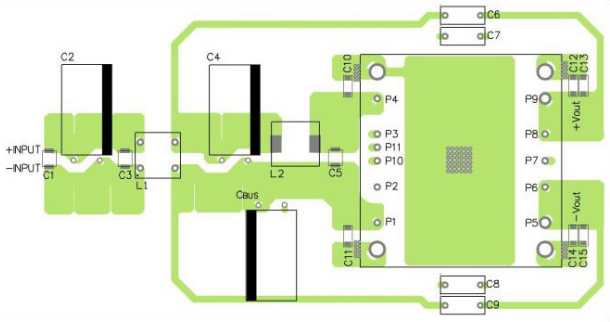
EMI Consideration

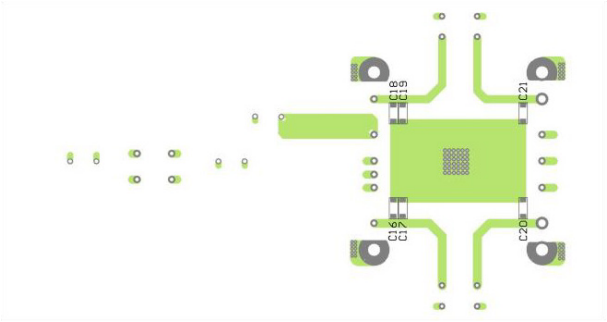
Suggested filter to comply with EN 55032 Conducted and Radiated Emissions Class A limits



PCB layout suggestion, Top View



PCB layout suggestion, Bottom View

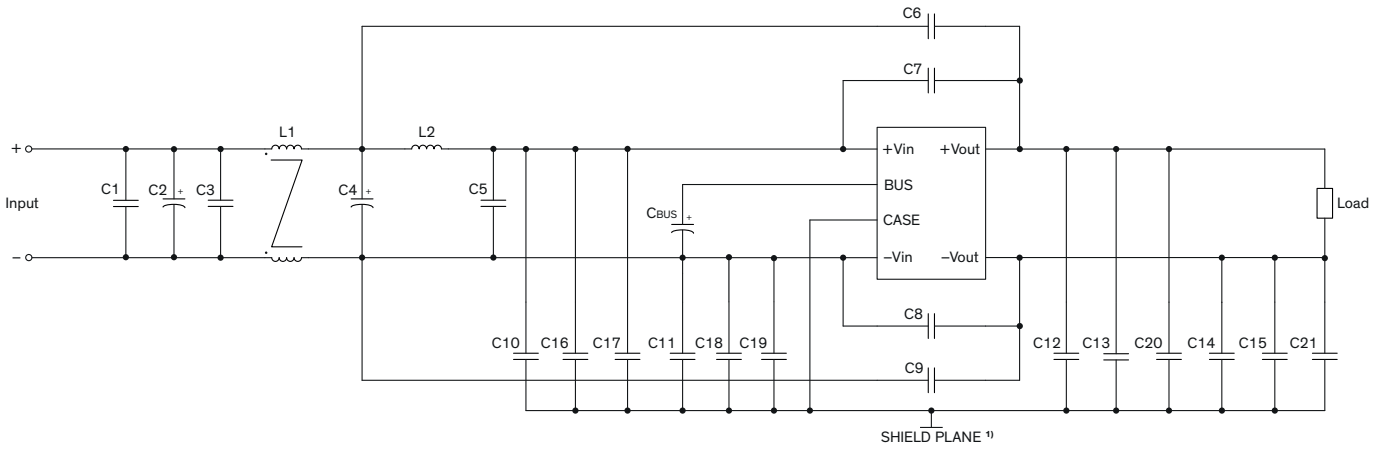


1) SHIELD PLANE: floating / isolated

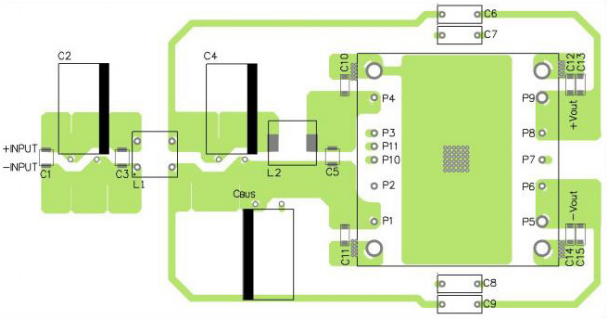
Suggested components to comply with EN 55032 Conducted and Radiated Emissions Class A limits						
Model	**C1, C2, C_{BUS}***	**C3**	**C4, C5, C6, C7**	**C8, C9, C10, C11**	**L1**	**L2**
TEP 150-xxxxUIR	150 µF / 200 V Al. Cap. (lie down) KXJ	1 µF / 250 V 1812 MLCC	1000 pF / Y1	330 pF / 250 VAC 1808 MLCC	545 µH TCK-183	4.7 µH TCK-184

TCK-183 datasheet: www.tracopower.com/overview/tck-183
TCK-184 datasheet: www.tracopower.com/overview/tck-184
* C_{BUS} must always be connected

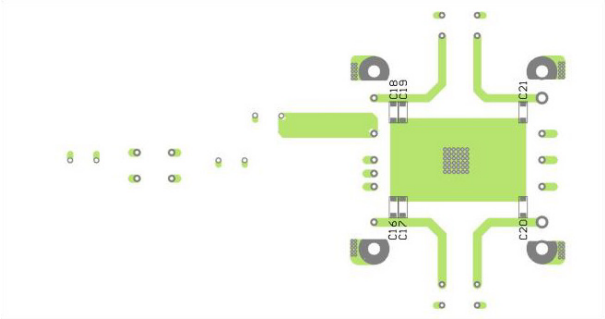
Suggested filter to comply with EN 55032 Conducted and Radiated Emissions Class B limits



PCB layout suggestion, Top View



PCB layout suggestion, Bottom View



1) SHIELD PLANE: floating / isolated

Suggested components to comply with EN 55032 Conducted and Radiated Emissions Class B limits					
Model	**C1, C3, C5**	**C2, C4, C_{BUS}***	**C6, C9**	**C7, C8**	**C10, C11, C16, C17, C18, C19**
TEP 150-7211UIR **TEP 150-7212UIR** **TEP 150-7213UIR** **TEP 150-7215UIR**	1 µF / 250 V 1812 MLCC	150 µF / 200 V Al. Cap. (lie down) KXJ	2'200 pF / Y1	3'300 pF / Y1	330 pF / 250 VAC 1808 MLCC
	C12, C14	**C13, C15**	**C20, C21**	**L1**	**L2**
On demand model with 28 Vout	680 pF / 250 VAC 1808 MLCC	1'000 pF / 250 VAC 1808 MLCC	100 pF / 250 VAC 1808 MLCC	545 µH TCK-183	4.7 µH TCK-184

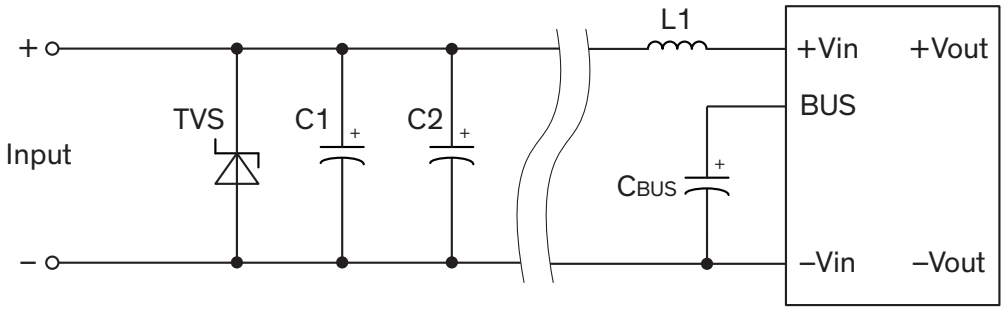
	C1, C3, C5	**C2, C4, C_{BUS}***	**C6, C9**	**C7, C8**	**C10, C11, C12, C14, C16, C17, C18, C19**
TEP 150-7218UIR **On demand model with 53 Vout**	1 µF / 250 V 1812 MLCC	150 µF / 200 V Al. Cap. (lie down) KXJ	3'300 pF / Y1	2'200 pF / Y1	330 pF / 250 VAC 1808 MLCC
	C13, C15	**C20, C21**	**L1**	**L2**	
	680 pF / 250 VAC 1808 MLCC	100 pF / 250 VAC 1808 MLCC	545 µH TCK-183	4.7 µH TCK-184	

TCK-183 datasheet: www.tracopower.com/overview/tck-183
TCK-184 datasheet: www.tracopower.com/overview/tck-184
* C_{BUS} must always be connected

EMS Consideration

Suggested filter to comply with EFT (Burst) & Surge

Single output models



Suggested components to comply with EFT (Burst) & Surge			
Model	**C1, C2, C_{BUS}***	**L1**	**TVS**
TEP 150-xxxxUIR	150 µF / 200 V / KXJ	3.3 µH / PIMC135T-3R3MF	170 V / 3‘000 W / SMDJ170A

* C_{BUS} must always be connected