SAFECOM
POWER INNOVATIONS
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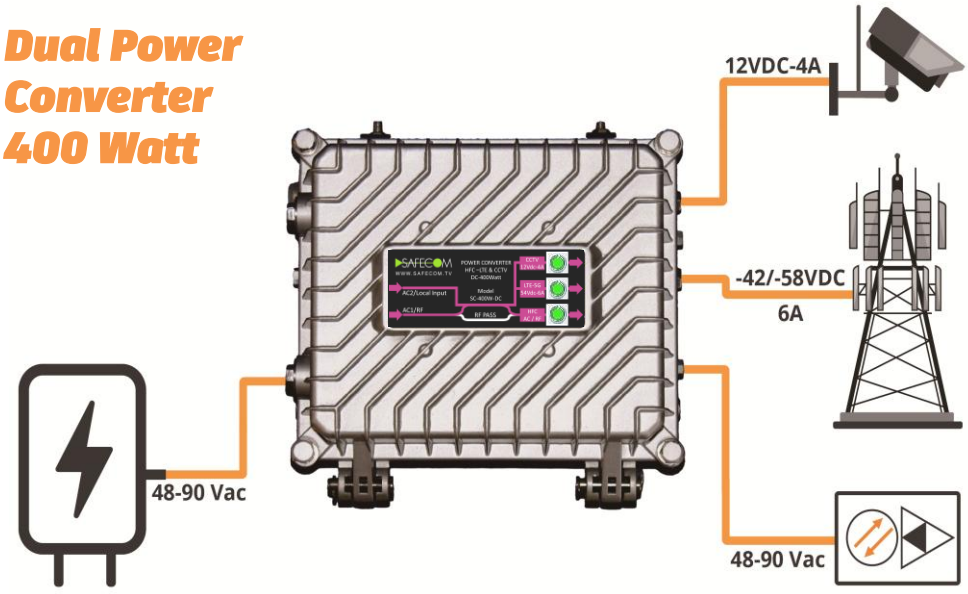
POWERING 5G CELLS AND CCTV

through existing HFC networks- (RF Pass)

Converting AC voltage from the CATV-HFC network, 46-90 Vac, into -54 Vdc at 6.5 A for powering LTE cells and into 12 Vdc at 4 A for powering CCTV systems.

Dual Power Converter 400 Watt



Safecom's new vision focuses on utilizing existing HFC (Hybrid Fiber-Coaxial) networks to power 5G macro and small cells by leveraging the available spare load in the network. This is accomplished through an innovative and highly efficient Dual High-Power AC-DC inverter (400W). The inverter converts AC electricity from the HFC network (typically ranging from 48-90 Vac) into -42/-58V DC, which is used to power 4G and 5G LTE cells.

This Dual Power Converter provides a complete power solution for deploying new LTE and CCTV systems without requiring additional investments in separate power sources or extra connections to the electric utility infrastructure.

By utilizing existing infrastructure, operators can significantly lower both capital and operational expenses, accelerating the deployment of new 5G technology and CCTV systems with minimal effort. This approach also reduces routine maintenance requirements and greatly enhances the reliability and survivability of the systems.

Furthermore, this solution offers cable TV operators an opportunity to generate new revenues from their existing HFC networks by providing on-site electricity supply to LTE cells operated by mobile service providers and CCTV services.

A streamlined powering solution for accelerating 5G deployment

- ✓ Waterproof
- ✓ Compact size
- ✓ RF pass (1.2 / 1.8 GHz) + external AC input
- ✓ Power inserter built-in
- ✓ High Power 400W

Power indications

- HFC AC supply 48-90Vac ON/OFF
- LTE supply: -42/58 Vdc ON/OFF
- CCTV supply: 12Vdc ON/OFF

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SAFECOM Dual DC Power Supply Specifications

MODEL 400W54V

	Parameter	Specification	Unit
Electrical Specification	Input Voltage	46-100	V_{AC}
	Source Frequency	47-63 (50/60 Typ.)	Hz
	Input Power Factor	≥ 0.98	
	In-Rush Transient Current	≤ $50A_{PEAK,}$ ≤ 20mS	A
	Input Undervoltage Lockout Cut-Off	43	V_{AC}
	Restore	46	V_{AC}
	Surge Withstand	6KV 3KA, 8/20µs Combo Wave	
		6KV 200A, 100kHz Ring Wave	

Output 1 CCTV	Output Power	50	**W**
	Voltage	12.0	V_{DC}
	Voltage Accuracy	± 1	% Max.
	Output Line Regulation	± 1	% V_{OUT} Max.
	Output Load Regulation	± 1	% V_{OUT} Max.
	Output Current	4.17	A_{DC}
	Current Limit Inception	4.6	A_{DC}
		Self Recovery	
	Holdup Time	≥ 25	mS
	Output Voltage Rise Time	≤ 10	mS
	Output Overvoltage Protection Inception	13.0	V_{DC}
	Isolation **(Note [8])**	1500	V_{AC}

Output 2 LTE	Output Power	**350**	**W**
	Rail Voltage	54.0	V_{DC}
	Voltage Accuracy	± 2	% Max.
	Output Line Regulation	± 1	% V_{OUT} Max.
	Output Load Regulation	± 1	% V_{OUT} Max.
	Output Current	6.48	A_{DC}
	Current Limit Inception	7.6	A_{DC}
		Self Recovery	
	Holdup Time	≥ 25	mS
	Output Voltage Rise Time	≤ 10	mS
	Output Overvoltage Protection Inception	-58.0	V_{DC}
	Isolation	1500	V_{AC}

General Specifications

Parameter	Specification	Unit
Operating Ambient Temperature	-40 to +60	ºC
Storage Temperature	-40 to +85	ºC
Humidity	wather proof (100%)	%
Efficiency	≥ 90	%
Delay From Input Application Until All Outputs In Regulation	≤ 1	S
Overtemperature Protection/Thermal Shutdown	> +85	ºC Ambient

RF Pass PCB 1.2Ghz Specification (internal-build-in)	Specification	Unit
Bandwidth	5-1218	Mhz
Through loss	<1.7 (+/- 0.5)	dB
Return Loss	>18	dB
RFI	>110	dB
Hum Modulation	>65	dB

RF Pass PCB 1.8Ghz Specification (External)	Specification	Unit
Bandwidth	5-1800	Mhz
Through loss (1800Mhz)	<1.8 (+/- 0.5)	dB
Return Loss	>14	dB
RFI	>110	dB
Hum Modulation	>53	dB

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