Certification Exhibit

FCC ID: 2ADWTASD02

FCC Rule Part: 47 CFR Part 2.1091

ACS Project Number: 15-0299

Manufacturer: Southern States, LLC
Model: ICS Receiver

RF Exposure

General Information:

Applicant: Southern States, LLC
Device Category: Mobile
Environment: General Population/Uncontrolled Exposure

The ICS Receiver is collocated and transmits simultaneously with (3) identical transceiver modules when integrated into the Southern States Receiver Module host.

Technical Information:

Table 1: Technical Information

	ICS Receiver #1	*ICS Receiver #2*
Frequency Band(s) (MHz)	2403.5 – 2478.5	2403.5 – 2478.5
Antenna Type(s)	Patch Antenna	Patch Antenna
Antenna Gain (dBi)	6	6
Conducted Power (dBm)	-4.35	-3.03
Conducted Power (mW)	0.37	0.50
Maximum Peak EIRP (mW)	1.46	1.98
Maximum Peak ERP (mW)	0.89	1.21

MPE Calculation:
The Power Density (mW/cm^2) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Table 2: MPE Calculation (Including Collocated Devices)

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)	Radio
2441	-4.35	1.00	0.37	6	3.981	20	0.0003	A
2441	-3.03	1.00	0.50	6	3.981	20	0.0004	B

Summation of MPE ratios – Simultaneous Transmissions
This device contains multiple transmitters which can operate simultaneously; therefore the maximum RF exposure is determined by the summation of MPE ratios. The limit is such that the summation of MPE ratios is ≤ 1.0.

Table 3: Summation of MPE Ratios

Radio A MPE Ratio	0.0003
Radio B MPE Ratio	0.0004
MPE Ratio Summation:	0.0007