

# 5GEN

## Ground Movement Detection Radar

■ SFX-2180 5GEN-R



  
**Safex**

Safex Aerospace Systems GmbH | [Info@safex-sas.de](mailto:Info@safex-sas.de) | [www.safex-sas.de](http://www.safex-sas.de)

# 5GEN

# Ground Movement Detection Radar

## ■ SFX-2180 5GEN-R

### General

SAFEX, SFX-2180 5GEN-R is a fifth generation of movement detection tactical Ground Surveillance Radars (GSR), providing both staring and electronic steering search techniques.

Featuring a high update rate, the radar enables very high probability of target detection and tracking to support complex missions. Combination of staring and scanning allows to adapt and optimize the radar operation for any scenario.

The SFX-2180 5GEN-R is a solid-state, small size and low weight Active Electronically Scanning Phased-array (AESA), multi-beam all weather radar providing high accuracy detection data, either locally or to remote Command and Control (C&C) systems.

The radar covers 90° to 360° by employing 1 to 4 stationary (non rotating) phased array antennas, each covering a sector of 90°.

### Features

- Simultaneous multi-mode operation combining staring and scanning programmable search regime
- Single Module Pulse Doppler Radar (SMPDR)
- Digital Beam Forming (DBF)
- Internal calibration with extensive BIT capabilities
- Flexible modular design to support different range and sector coverage
- Track-while-scan supporting up to 300 targets
- Independent operation or integrated with other surveillance systems and/or C&C
- Local or remote operation
- High reliability non-moving parts
- Event recording
- Very quick and easy deployment

### Specifications\*

|                           |                                          |
|---------------------------|------------------------------------------|
| ■ Frequency               | X band                                   |
| ■ Detection range         |                                          |
| - Walking person          | Staring mode: 4Km<br>Scanning mode: 7Km  |
| - Vehicle                 | Staring mode: 8Km<br>Scanning mode: 15Km |
| ■ Azimuth coverage        | 90°                                      |
| ■ Min. detecting range    | 15m                                      |
| ■ Min. detecting velocity | 0.6km/h                                  |
| ■ Range resolution        | 5m                                       |
| ■ Range accuracy          | 0.5m                                     |
| ■ Azimuth resolution      | 7.5°                                     |
| ■ Azimuth accuracy        | 0.5°                                     |
| ■ Elevation coverage      | 10°                                      |
| ■ Update rate             |                                          |
| - Staring mode            | 0.3 sec                                  |
| - Scanning mode           | 0.3 - 4 sec (sector dependable)          |
| ■ Transmission power      |                                          |
| - Peak                    | 32W                                      |
| - Average                 | 3.2W                                     |
| ■ MTBF                    | >18000Hr                                 |

### Physical Characteristics

|                     |                                  |
|---------------------|----------------------------------|
| ■ Weight            | <10Kg                            |
| ■ Dimensions        | 47cm (H) x 35cm (W) x 13/5cm (D) |
| ■ Power consumption | 90W                              |
| ■ Power supply      | 18V to 32V DC                    |

\* Different detection ranges and performance level can be tailored to fit specific requirements



Safex Aerospace Systems GmbH  
Integrated Solutions & Sensors  
[www.safex-sas.de](http://www.safex-sas.de)  
E-mail: [info@safex-sas.de](mailto:info@safex-sas.de)