48 years of history, experience, expertise and trust
The quality of Samel 90 products is guaranteed by the strict observation of the requirements of the military standards and the Quality Management provided by the ISO9001:2000 standards.

Samel 90 has its own state certified test laboratory able to conduct different types of testing, including environmental testing.

On 23 July 2004 Samel 90 has been certified by the Bulgarian MOD according to the requirements of NATO AQAP 2110 standard.
NAMSA code: 40000499994
CAGE code: 0002U
D-U-N-S number: 628154379
CCR number: AYZ87B
TPIN number: 75863891
- Staff > 400 people
- 75% of the production is exported;
- Export in 85 countries of the world;
- Main customers:
  - Ministry of Defense - Bulgaria
  - Ministry of Interior - Bulgaria
  - National Electric Company - Bulgaria
  - Northrop Grumman – USA
  - BAE Systems – UK
  - E2V - UK
  - Norinco – China
  - Dedo Weigert Film” – Germany
  - Grammer – Germany
  - Diamond tools supply – USA and other
TECHNOLOGICAL CAPABILITIES

• ELECTRONIC ASSEMBLY PRODUCTION
• MECHANICAL PRODUCTION
• CNC MACHINING
• CASTING PRODUCTION
• PRESSING PRODUCTION
• PRODUCTION OF BAKELITE AND PLASTIC PARTS
• FERRITE AND PIEZO-CERAMIC PRODUCTION
• GALVANIC AND LACQUER COATING
• PRODUCTION OF TOOLING
• INTEGRATION OF COMMAND & STAFF AND OTHER SPECIAL PURPOSE MACHINES
PRODUCTION CAPABILITIES

• ELECTRONIC PRODUCTS AND EQUIPMENT
• JAMMING SYSTEMS – ARTILLERY AND RCIED JAMMERS
• COMMUNICATION EQUIPMENT
• TETRA SYSTEMS INTEGRATION
• SECURITY PRODUCTS PRODUCTION
• NAVIGATION & VTS RADARS PRODUCTION
• GROUND RADARS PRODUCTION
• MANPAD LAUNCHERS
• SURVEILLANCE PRODUCTS AND EQUIPMENT
• ELECTRONICS AND RADIO SPARE PARTS PRODUCTION
• ARMAMENT PARTS PRODUCTION
• LED LIGHTING SYSTEMS PRODUCTION
<table>
<thead>
<tr>
<th>No.</th>
<th>NSN (NATO commodity number)</th>
<th>Name of the product</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5865-50-001-1872</td>
<td>Mobile RCIED Jammer</td>
<td>SVJ-XXX</td>
</tr>
<tr>
<td>2.</td>
<td>5865-50-001-1873</td>
<td>Manpack RCIED Jammer</td>
<td>SPI-XXX</td>
</tr>
<tr>
<td>3.</td>
<td>1320-50-0000-9444</td>
<td>“Chadar” – 152mm shot BPC 546C</td>
<td>SCH 032.00/00.00.00.00</td>
</tr>
<tr>
<td>4.</td>
<td>1315-50-0004-5755</td>
<td>“Chadar” – 122mm shot BPC 463C</td>
<td>SCH 032.22.00/00.00.00.00</td>
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<tr>
<td>5.</td>
<td>5865-50-0011-121</td>
<td>“Chadar” – transmitter for radiojammings P-032 SCH</td>
<td>SCH 032.10/00.00.00.00</td>
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<tr>
<td>6.</td>
<td>5805-50-000-4160</td>
<td>Field telephone set “TAP-2000”</td>
<td>TA 00.00.00.00</td>
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<tr>
<td>7.</td>
<td>2355-50-0004-576</td>
<td>Command &amp; staff vehicle - MMCP</td>
<td>0720.00.00.00.00</td>
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<tr>
<td>8.</td>
<td>2355-50-0004-577</td>
<td>Command &amp; staff vehicle – MCP</td>
<td>0719.00.00.00.00</td>
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<tr>
<td>9.</td>
<td>5805-50-000-3642</td>
<td>Intercom system</td>
<td>0720.70.00.00.00</td>
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<tr>
<td>10.</td>
<td>5805-50-000-5560</td>
<td>Digital IP switch</td>
<td>0720.60.00.00.00</td>
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<tr>
<td>11.</td>
<td>7025-50-000-3638</td>
<td>Wireless Ethernet connection unit</td>
<td>0720.35.00.00.00</td>
</tr>
<tr>
<td>12.</td>
<td>7025-50-000-3639</td>
<td>Mobile shake-proof printer</td>
<td>0720.30.00.00.00</td>
</tr>
<tr>
<td>13.</td>
<td>6110-50-000-3641</td>
<td>Charge switch board</td>
<td>0720.20.00.00.00</td>
</tr>
<tr>
<td>14.</td>
<td>8415-50-0005-264</td>
<td>Tank helmet- summer model</td>
<td>727.00.00.00.00-02</td>
</tr>
<tr>
<td>15.</td>
<td>8415-50-0005-265</td>
<td>Tank helmet- winter model</td>
<td>727.00.00.00.00-01</td>
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<tr>
<td>16.</td>
<td>5820-50-000-6065</td>
<td>Base station CTS – 100 Compact TERA</td>
<td>CTS-100</td>
</tr>
<tr>
<td>17.</td>
<td>5820-50-000-6064</td>
<td>TETRA terminal MTH800, portable</td>
<td>MTH800</td>
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<tr>
<td>18.</td>
<td>5820-50-000-6066</td>
<td>TETRA terminal MTH800, mobile</td>
<td>MTH800</td>
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<tr>
<td>19.</td>
<td>5820-50-000-4671</td>
<td>A monitor station from a set of Ground based reconnaissance-signal sensors</td>
<td>RA4310-00</td>
</tr>
<tr>
<td>20.</td>
<td>6350-50-000-4675</td>
<td>Seismic/PIR sensor</td>
<td>TA4312-00</td>
</tr>
<tr>
<td>21.</td>
<td>6350-50-000-4674</td>
<td>Magnetic/PIR sensor</td>
<td>TA4314-00</td>
</tr>
<tr>
<td>22.</td>
<td>5850-50-000-4673</td>
<td>Infra-red sensor</td>
<td>MA4322-00</td>
</tr>
<tr>
<td>23.</td>
<td>7030-50-000-4672</td>
<td>Program insurance for a set of Ground based reconnaissance-signal sensors</td>
<td>SP4340/001-00</td>
</tr>
<tr>
<td>24.</td>
<td>5820-50-000-4670</td>
<td>A set of Retransmission equipment for ground based reconnaissance-signal sensors</td>
<td>RA4310-00R</td>
</tr>
<tr>
<td>25.</td>
<td>5828-10-5407-426</td>
<td>Amplifier of power – a set for installation – for mobile VHF radios RF – 5800 – V201</td>
<td>RF – 5800V – V201</td>
</tr>
<tr>
<td>26.</td>
<td>5820-50-000-8948</td>
<td>Portable HF and VHF radios average power</td>
<td>0740.00.00.00.00</td>
</tr>
</tbody>
</table>
Field telephone sets TAP-77, ATP-1000, TAP-2000

Field telephone switchboards (analog and digital)
Electronics and launchers for anti-aircraft missile complexes Strela-2, Strela-3 and Iгла
HF/VHF radio jammers mounted in artillery shells – “Starshel” and “Chadar”
Mobile, Portable and Manpack Jammers against Remote Controlled Improvised Explosive Devices (RCIED)
MOBILE RADIOJAMMER

Frequency band: 20 MHz ÷ 2500 (3000/6000) MHz

Number of subbands – up to 14

Output RF power: up to 1300 W, divided in separated frequency subbands
PORTABLE RADIOJAMMER (briefcase)

Frequency band, MHz
- 20 ÷ 520
- 800 ÷ 1000
- 1800 ÷ 2200, or other depending on customer specification

Output RF power
- Up to 100 W
**PORTABLE RADIOJAMMER (rucksack)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency band, MHz</td>
<td>20 ÷ 520</td>
</tr>
<tr>
<td></td>
<td>800 ÷ 1000</td>
</tr>
<tr>
<td></td>
<td>1800 ÷ 2200, or other</td>
</tr>
<tr>
<td></td>
<td>depending on customer specification</td>
</tr>
<tr>
<td>Output RF power</td>
<td>Up to 100 W</td>
</tr>
</tbody>
</table>
Manpack & Hand held VHF radios

Charging devices, antennas, accessories for VHF radios
Integration of TETRA communication systems
Mobile VHF radio complexes R-33RU

More than 1 600 pcs MCP-s

Command Post Vehicles
Digital switches

Digital Communication Shelters for BA
Re-equipping of Command & Staff and other vehicles for Bulgarian Army Contingents in Iraq and Afghanistan
Re-equipment of Command & Staff and other vehicles for Bulgarian Army Contingents in Iraq and Afghanistan
Project for field communication and information system for the SOF of Bulgarian Army – FMF funding
Project for field Communication & Information system for Bulgarian Army contingent in SEEBrig
Integration of MMCP and MCP Vehicles
Project for field Communication & Information system for the Bulgarian Army

MMCP – Structure

Switch Equipment:
- Digital ATM Switch
- Digital IP Switch

Communication Subsystem:
- Digital Radio Relay – NATO band IV
- Digital Radio Relay – NATO band V
- Satcom Terminal
- Wideband Data Radio
- Mobile HF Radio – 125W
- Mobile VHF Radio – 50W
- TETRA Base Station
- WLAN Equipment (Wireless Ethernet)
- GPS Receiver

Information Subsystem:
- Server
- LAN switch
- Workstation
- Printer

Interfaces to:
- Military Backbone
- All Field Communication Systems
- ISDN Networks
- STANAG 4206
- National Telecom
- PBAX, PSTN
- INMARSAT or another Satcom Operator
Project for field Communication & Information system for the Bulgarian Army

MCP – Structure

Switch Equipment:
- Digital IP Switch

Information Subsystem:
- LAN switch
- Workstation
- Printer

Communication Subsystem:
- Wideband Data Radio
- Mobile HF Radio – 125W
- Mobile VHF Radio – 50W
- TETRA Mobile Station
- WLAN Equipment (Wireless Ethernet)
- GPS Receiver

Interfaces to:
- Military Backbone
- All Field Communication Systems
- ISDN Networks
- National Telecom
- PBAX, PSTN
Production line for sea radars for Northrop Grumman Sperry Marine–New Malden-UK office
Production line for Northrop Grumman Sperry Marine, UK
Main integrator of Mobile Surveillance Systems for the National Border Police Service
Samel-90 Projects for Surveillance Systems
Ground radar for surveillance and guarding
Training Simulators for Strela&Igla, Fagot&Konkurs a/tank complexes,
Tank crew training, Firing practice
Dam Lake Information and Alert Systems
SMT and conventional assembling of PCBs
Manufacturing of cable harnesses
Assembling and test of electronic products

Production of all kinds of coils, chokes, transformers
Design and manufacturing of energy saving LEDs lights
Consumer electronic products
Precise metal press and mechanical treatment of metals and manufacture of parts with complicated configuration and high accuracy
Die-casting of aluminum and zinc alloys
Pressing and injection molding form for plastics, press powders and rubbers.
Galvanic, lacquer painting and powder coatings
Design and manufacture of ferrites and piezoceramic products
Design and manufacture of high frequency insulating steatite ceramic
Design and manufacturing of tooling (punching, press forms, injection molding forms)
• Training, technical assistance, guarantee and after-guarantee service
Samel-90 Training Center
Samel 90 has established a long-term business relationship with many companies from Western Europe. The company has built-up a wide experience in both working as a sub-contractor and supplying finished products to companies from United Kingdom, Germany, United States, Belgium, France, China and other countries.
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