<table>
<thead>
<tr>
<th>Srl</th>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>1</td>
<td>Name of the company</td>
<td>HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED</td>
</tr>
<tr>
<td>2</td>
<td>Year of Establishment</td>
<td>1989</td>
</tr>
<tr>
<td>3</td>
<td>Verticals in which operating</td>
<td>Manufacturing Telecom products (wireless, wire-line, optical transmission, access systems, DECT?CDMA subscriber terminals) Optical Fiber Cable, Executing Telecom turnkey projects</td>
</tr>
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<td>4</td>
<td>Credentials of company</td>
<td>- MSME</td>
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<td></td>
<td>(Quality Approvals, Type of registration/Small, Medium, Large Scale, Manufacturing Locations etc.)</td>
<td>- Plant have the following Quality accreditations ISO 9001:2000 ISO 14001:2004</td>
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<td>5</td>
<td>Main Products /Components</td>
<td>Digital Microwave, SDH Radios, DECT based WLL</td>
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<tr>
<td>6</td>
<td>Previous experience in technology transfer</td>
<td>Yes – MPT Teltech and Alcatel</td>
</tr>
<tr>
<td>7</td>
<td>Details of technology offered</td>
<td>Total design and manufacturing</td>
</tr>
</tbody>
</table>
| 8   | Contact Details                                  | **M.A.JOHAR**  
A.V.P. Business Development  
Himachal Futuristic Communication Limited  
8, Commercial Complex, Masjid Moth, Greater Kailash II  
New Delhi  
Phone Direct: 011-30886501, Mob: 8588826483  
Email: ma.johar@hfcl.com                                                                                                                                                                                                                                           |
| 9   | Type of Partnership/ Joint Venture desired       | JV                                                                                                                                                                                                                                                                                                                                  |
| 10  | Any Other relevant Details                        | Looking forward to partner with companies in the field of manufacturing electronic products for Defense/Public safety services such as – public security radios, SDR, Point-Point & Point to Multipoint microwave radios; microwave integrated circuits and Optical Transmission systems. |
COMPANY PROFILE

1. Himachal Futuristic Communications Limited (HFCL) is one of the largest private sector Indian telecom companies. It manufactures state-of-the-art telecom equipment besides delivering innovative and customized end to end turnkey telecom solutions. The Company is equipped with adequate in-house manufacturing and research and development facilities. The Company achieved a total revenue turnover of INR 2000 Cr in the Financial Year 2013-14. It employs more than 2000 professionals on its permanent rolls.

2. The products manufactured by HFCL include wireless, optical transmission/ access systems and wide range of DECT/CDMA subscriber terminals. The Company has rich experience in manufacture of telecom equipment both, through Transfer of Technology (ToT) and indigenous R&D.

3. Telecom turnkey projects executed by the Company include setting up of CDMA network for MTNL Delhi and Mumbai, Nationwide Spectrum Management Network, Satellite network and wireless/ optical transmission networks for public/private and defence sector.

4. The company has executed several OFC network projects for large private Service Telecom Providers such as Railtel, PGCIL and Defense. It has commissioned more than 5000 cell sites on turnkey basis including site design, civil works, erection of towers/shelters, commissioning of radio networks and provision of power systems. The company is currently executing a pan-India OFC network for a large 4G operator, with operations in more than 500 cities.

5. Exicom Tele Systems, a group company of HFCL, is the market leader in designing and manufacture of power management systems for telecom solutions. Exicom supplies complete range of Power Management Solutions including customized power plants to meet stringent requirements. The Company has a state of the art manufacturing facility at Gurgaon along with dedicated R&D facility with over 40 highly skilled personnel for embedded software development.

6. **Experience in Manufacturing through Transfer of Technology.** The Company has manufactured under-mentioned equipment in India through Transfer of Technology:-
   a. Digital Microwave Radios
   b. SDH Radio
   c. DECT Based WLL System
   d. CDMA based WLL System
   e. CDMA Subscriber Terminals
   f. Optical Line Terminal Systems (Optimux)
g. SDH Optical Transmission Systems

h. DWDM

7. **Key Strengths of HFCL.**
   a) HFCL has a strong existing manufacturing base for telecom products in units located at Solan, Gurgaon, Goa and Chennai. The Solan plant is equipped with a large state-of-the-art fully automated SMT unit and modern testing facilities. It has earlier manufactured equipment similar to BMS requirements such as radios, optical and multiplexing equipments involving niche technology.
   b) It has adequate experience in indigenous manufacture of telecom equipment in India through ToT from reputed OEMs abroad and Indian R & D organizations /institutions.
   c) HFCL has executed large telecom turnkey projects successfully in specified time frame.
   d) HFCL has a state of the art Power Management Systems manufacturing plant along with R & D facilities. HFCL has in-house capability to develop customised batteries in terms of firmware and capacity to cater for diverse types of radios and communication equipment.
   e) It has a pan India presence, with dedicated skilled professionals.
   f) HFCL has a flat hierarchy for fast decision making and resource deployment
   g) HFCL is a fast growing, professionally managed organisation with strong financial base to invest for the project.

8. **HFCL** is presently looking forward to expand its manufacturing base and is keen to partner with Israeli companies in the field of manufacturing electronic products for Defense/Public safety services such as – public security radios, SDR, Point-Point & Point to Multipoint microwave radios; microwave integrated circuits and Optical Transmission systems.
HFCL – Brief Business Overview

HFCL Group Companies

- Polixel
- Exicom Tele-systems
- DragonWave
- Digivive
HFCL Capability:

Infrastructure & Manufacture Facilities at HFCL  Solan

HFCL operates a state-of-the-art electronics manufacturing plant at Solan (Himachal Pradesh), fully equipped to manufacture equipment such as microwave radio, wireless access systems, optical transmission & access systems and subscriber access terminals.

- ESD Safe Area in Production & Testing.
- Surplus Electric Power in the state
- Environment naturally clean and conducive to electronic manufacturing.
- Facility is air conditioned using Vapour Absorption Machines (VAM).

Equipment Manufacturing Facilities:

- SMT Pick & Place Machine
- Paste Printer (DEK Horizon 03iX)
- Multi camera A O I System (Viscom 3088 basic)
- Nitrogen based Reflow Oven (TSM- N70-i92)
- Reflow Soldering Machine Conceptronic J60 AIR
- In – Circuit Tester (Agilent HP 3070 Series III)
- RF Test Instruments

HFCL Optical Fiber manufacturing plant at GOA:
HFCL operates a world class state-of-the-art OFC manufacturing plant, spread over 17,400 sqm; procured from Swisscab, Switzerland.

The plant manufactures Fibre Optic Cable of up to 288 fibres; customized to suit different client needs. Its high-tech instrumentation for analysis and a rigorous quality check ensure highest industry quality standards. High safety factor and narrow tolerance band guarantee production of 100,000 km of high precision optical fiber cables in one single year.

The company offers a complete range of cables for telecommunications & IT networks. Supported by its in-house R&D facility, the company has delivered custom-designed fiber optic cables with superior performance in compliance as per ITU-T Standards. Plant is capable of producing high precision cables with a narrow tolerance band up to 244 fibers.

**Types of optical cables in Plant:**

- Multimode and Single Mode Cable
- Loose Tube Type Cable
- Unitube Type Cable
- Multitube Cables
- Corrugated Steel Tape Armoured Cable
- Wired Armoured Cable
- ADSS type aerial cable
- Metallic Figure 8 self supporting cable
- Simplex/ Duplex Cable (Patch cord)
- Multitube Ribbon Cable
- Unitube Ribbon Cable

**TURNKEY SERVICES**

- HFCL is a single window solution provider for the exécution of télécom projects in India. It undertakes end-end solutions from concept to completion for network implementation; involving layout of optical fiber, system installation and integration services.

- The Company also provides end to end services in deployment of radio & optic fiber networks, access, wireless and broadband networks. Its services include feasibility studies, choice of media, survey, design, planning, engineering, supply and laying of optical fibre cables, installation, commissioning and maintenance of networks. Professionals qualified staff possessing expertise and experience in state-of-the-art telecom networks and technologies have already installed and managed telecom networks of all sizes.

- HFCL has executed various national and international turnkey projects in the field of Satellite & Radio Communication, CDMA Mobile networks, Optical Transport Networks and Spectrum Management solution. In addition, the Company provides and implements projects for complete
Cell Site infrastructure for mobile operators. It has on its client list almost all private and Government GSM vendors.

- Values provided by HFCL's Turnkey Services are:
  - End to End Program Management
  - Hassle-free project management
  - Integrated solutions for fiber roll out
  - Single window solution
  - High quality installation and implementation
  - Pan India presence with proven track record easing effective customer service

Our key Clientele

- OEM Vendors
  - Ericsson
  - Huawei
  - ZTE
  - Alcatel-Lucent
- Private Operators
  - Reliance Communications
  - Airtel
  - Aircel
  - Tata Indicom
  - Connect
- Public Sector Enterprises
  - BSNL
  - MTNL
  - NTPC
  - IndianOil
  - GSPC
- Others
  - Government of India
  - Tata Power
  - D-Link
  - ABB
HFCL is presently looking forward to partner with Israeli companies in the field of manufacturing electronic products for Defense/Public safety services such as – public security radios, SDR, Point-Point & Point to Multipoint microwave radios; microwave integrated circuits and Optical Transmission systems.