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102435841

ocket No.: K0531773

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

Tab settings → → → ▼

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Com Dev Ltd.

4-28-03

2. Name and address of receiving party(ies):

Name: Canadian Imperial Bank of Commerce

Address: 1 King Street East

Suite 200

Additional names(s) of conveying party(ies)

☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☒ Security Agreement

☐ Change of Name

☐ Other

City: Kitchener

State/Prov.: ON

Country: Canada

ZIP: N2H 6N2

Execution Date: December 6, 2002

Additional name(s) & address(es)

☐ Yes ☒ No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is:

Patent Application No.

Filing date

B. Patent No.(s)

10/006,155

12/11/2000

60/389,931

06/20/2002

09/650,522

08/29/2000

09/339,252

06/24/1999

4,644,305

5,065,125

5,489,880

4,614,920

5,332,983

5,739,733

4,806,887

5,345,135

5,608,363

4,851,801

5,499,006

5,822,312

Additional numbers

☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Valentine A. Cottrill

Registration No. 50,187

Address: Gowling Lafleur Henderson LLP

50 Queen Street North

Suite 1020

City: Kitchener

State/Prov.: Ontario

Country: Canada

ZIP: N2H 6M2

6. Total number of applications and patents involved:

35

7. Total fee (37 CFR 3.41):.....\$ 1,400.00

☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account

☒ Authorized to be charged to deposit account

8. Deposit account number:

501613

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Valentine A. Cottrill

Name of Person Signing

Signature

Date

April 25, 2003

number of pages including cover sheet, attachments, and

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

PATENT

REEL: 013998 FRAME: 0806

**RECORDATION FORM COVER SHEET**  
(Additional Numbers)**B. Patent No.(s), continued**

5,825,325	6,047,162	6,170,154 B1	6,300,775
5,867,077	6,266,329	6,049,261	6,169,466
5,956,620	6,268,944	5,929,724	6,232,853
6,408,164	5,929,729	6,249,513	6,255,919
6,179,976	6,459,346	5,245,340	

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS AGREEMENT is made as of December 6, 2002, between COM DEV LTD. (the "Guarantor") and CANADIAN IMPERIAL BANK OF COMMERCE (together with its successors and assigns, the "Lender").

### WHEREAS:

- A. The Guarantor has granted an unlimited liability guarantee (the "Guarantee") dated December 6, 2002 in favour of the Lender respecting the indebtedness and liability of Com Dev International Ltd. (the "Borrower") to the Lender pursuant to a Credit Agreement dated the date hereof among the Borrower, the Guarantor, Com Dev Europe Limited and the Lender (as such Credit Agreement may be amended, varied, supplemented, restated, renewed or replaced at any time and from time to time), (the "Credit Agreement").
- B. The Guarantor is, or may become, liable to the Lender pursuant to the Guarantee and/or the Credit Agreement.
- C. The Guarantor is the owner of certain rights to the Intellectual Property (as hereinafter defined) which is an important component of the ongoing operations of the Guarantor's business.
- D. To secure the payment and performance of its indebtedness, liabilities and obligations incurred or to be incurred in favour of the Lender pursuant to the Guarantee and/or the Credit Agreement, the Guarantor has agreed to grant a security interest in all of its right, title, interest and benefit in, to, under and in respect of the Intellectual Property to the Lender, on the terms and conditions set forth below.
- E. The Guarantor has duly authorized the execution, delivery and performance of this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSES that for good and valuable consideration (the receipt and adequacy of which are hereby acknowledged), the Guarantor covenants, agrees and declares with and in favour of the Lender as follows:

### Article 1 - Interpretation

1.1 **Definitions.** In this Agreement and any Schedule hereto, unless there is something in the subject matter or text inconsistent therewith or unless the context otherwise specifies or requires, capitalized terms shall have the meanings set forth below:

"**Agreement**" means this Agreement, including the Schedules hereto, as the same may be amended, varied, supplemented, restated, renewed or replaced at any time and from time to time;

"**Business Day**" means a day on which banks are open for business in Toronto, Ontario, other than a Saturday, Sunday or legal holiday;

"**Credit Agreement**" has the meaning specified in recital A to this Agreement;

"**Default**" has the meaning described in Section 3.1 of this Agreement;

"**Intellectual Property**" has the meaning described in Section 2.1 of this Agreement;

"**Loan Documents**" has the meaning described in Section 2.2 of this Agreement;

"**Lender**" means Canadian Imperial Bank of Commerce and its successors and assigns;

"**Obligations**" means in respect of the Guarantor all present and future indebtedness, liabilities and obligations of any kind which the Guarantor has from time to time incurred or may incur or be under to the Lender wherever and however incurred and any unpaid balance thereof, including those that are direct or indirect, absolute or contingent, joint or several or are due or hereafter to become due including without limitations, all obligations of the Guarantor pursuant to the Guarantee and Credit Agreement.

"**Person**" means any natural person or artificial body (including among others any firm, corporation or government); and

"**Receiver**" means a receiver or a receiver and manager.

1.2 **Interpretation Not Affected by Headings, etc.** Grammatical variations of any terms defined herein have similar meanings; words (including defined terms) importing the singular shall include the plural and vice versa; and words importing gender shall include the masculine, feminine and neuter genders. The division of this Agreement into separate Articles, Sections, Subsections, Paragraphs and Subparagraphs and the insertion of headings and references are for convenience of reference only and shall not affect the construction or interpretation of this Agreement.

1.3 **Severability.** If any covenant, obligation or agreement contained in this Agreement, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such covenant, obligation or agreement to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each covenant, obligation and agreement of this Agreement shall be separately valid and enforceable to the fullest extent permitted by law.

1.4 **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and without prejudice to the ability of the Lender to enforce this Agreement in any other proper jurisdiction, the Guarantor hereby submits and attorns to the jurisdiction of the courts of the Province of Ontario for the purpose of all proceedings relating to this Agreement.

1.5 **Successors and Assigns.** This Agreement shall extend and enure to the benefit of the Lender and its successors and assigns and shall be binding upon the Guarantor and its successors and permitted assigns. Subject to the Credit Agreement, the Lender may from time to time assign or transfer all or any of the Obligations or any interest therein and, notwithstanding any such assignment or transfer or any subsequent assignment or transfer thereof, any such Obligation or part thereof so transferred or assigned shall be and shall remain an "**Obligation**" for the purposes of this Agreement and any immediate and successive assignee or transferee of any Obligation or any interest therein shall, to the extent of the interest so assigned or transferred, be entitled to the benefit of, and the right to enforce, this Agreement to the same extent as if such person were the Lender. The Guarantor's obligations hereunder shall not be assigned or delegated without the prior written consent of the Lender.

1.6 **Amalgamation.** The Guarantor acknowledges and agrees that in the event it amalgamates with any other company or companies it is the intention of the parties hereto that the security interests created hereby (i) shall extend to Intellectual Property owned by each of the amalgamating companies and the amalgamated company at the time of amalgamation and to any Intellectual Property thereafter owned or

acquired by the amalgamated company, such that the term "**Guarantor**" when used herein would apply to each of the amalgamating companies and the amalgamated company and (ii) shall secure the Obligations of each of the amalgamating companies and the amalgamated company to the Lender at the time of amalgamation and any Obligations of the amalgamated company to the Lender thereafter arising. The security interest shall attach to the additional Intellectual Property at the time of amalgamation and to any Intellectual Property owned or acquired by the amalgamated company when such becomes owned or is acquired.

## Article 2 - Security etc.

2.1 **Security.** For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, to secure the due payment and performance of all of the Obligations, the Guarantor grants to the Lender a security interest in, all of its right, title and interest in and in respect of the following property (collectively, the "**Intellectual Property**"), whether now existing, owned or used or hereafter existing, owned, acquired, adopted or used:

- (a) all trade-marks, trade names, corporate names, company names, business names, logos and other sources of business identifiers, and the goodwill associated therewith, all registrations and recordings thereof and all applications in connection therewith, including registrations, recordings and applications with the Canadian Intellectual Property Office and any similar government office or agency in other countries, including those referred to in Schedule A to this Agreement and any additional schedule attached to this Agreement by the Lender from time to time, and all renewals thereof;
- (b) all copyrights and industrial designs in all works, including but not limited to all designs, drawings, logos, publications, computer programs, and all registrations of, and all applications in connection with the foregoing copyrights or industrial designs, including all registrations, recordings and applications with the Canadian Intellectual Property Office and any other similar government office or agency in other countries, including those referred to in Schedule B to this Agreement and any additional schedule attached to this Agreement by the Lender from time to time, and all renewals thereof
- (c) all patents, proprietary technology, rights to inventions whether patentable or otherwise, know-how, trade secrets, confidential information and any other processes, and any applications for registration pertaining to any patents, and any and all counterpart or similar applications or registrations in the Canadian Intellectual Property Office or elsewhere, including patent applications filed under the Patent Cooperation Treaty (PCT), including those referred to in Schedule C to this Agreement and any additional schedule attached to this Agreement by the Lender from time to time, and all renewals thereof;
- (d) any and all licenses currently in force, or that may in the future be in force, which directly or indirectly license, permit or otherwise authorize the Guarantor, by any means whatsoever, to make, use, offer for sale, sell or advertise wares or services in connection with issued or pending applications for one or more patents, trade-marks, industrial designs, or in association with licensed know how, trade secrets, confidential information, web sites, web pages or domain names; and

- (e) all proceeds of, and rights associated with, the foregoing, including any claim by the Guarantor against third parties for the past, present or future infringement or violation of any of the rights described in clauses (a) to (d) or for any injury to the goodwill associated with the use of any such trade-mark or for breach or enforcement of any license agreement described in clause (d), and all rights corresponding thereto throughout the world.

2.2 **Agreement for Security Purposes.** The security interests granted hereby have been granted as a supplement to, and not in limitation of, the security interests granted by the Guarantor to the Lender under any other documents executed in connection with the Credit Agreement and the Security (as defined in the Credit Agreement) (collectively, including the Credit Agreement and the Security, the "**Loan Documents**"). Such Loan Documents (and all rights and remedies of the Lender therein) shall remain in full force and effect in accordance with their terms.

### Article 3 – Default

3.1 **Default.** The occurrence of any Event of Default under the Credit Agreement shall be a "**Default**" under this Agreement.

3.2 **Rights upon Default.** Upon Default, the Lender and a Receiver, as applicable, will to the extent permitted by law have the following rights.

- (a) **Appointment of Receiver.** The Lender may by instrument in writing appoint any Person as a Receiver of all or any part of the Intellectual Property. The Lender may from time to time remove or replace a Receiver, or make application to any court of competent jurisdiction for the appointment of a Receiver. Any Receiver appointed by the Lender will (for purposes relating to responsibility for the Receiver's acts or omissions) be considered to be the Guarantor's agent. The Lender may from time to time fix the Receiver's remuneration and the Guarantor will pay the Lender the amount of such remuneration. The Lender will not be liable to the Guarantor or any other Person in connection with appointing or not appointing a Receiver or in connection with the Receiver's actions or omissions.
- (b) **Dealings with the Intellectual Property.** The Lender or a Receiver may take possession of all or any part of the Intellectual Property and retain it for as long as the Lender or the Receiver considers appropriate, receive any rents and profits from the Intellectual Property, borrow on the security of the Intellectual Property, repair the Intellectual Property, process the Intellectual Property, prepare the Intellectual Property for sale, lease or other disposition, and sell or lease (or concur in selling or leasing) or otherwise dispose of the Intellectual Property on such terms and conditions (including among other things by arrangement providing for deferred payment) as the Lender or the Receiver considers appropriate. The Lender or the Receiver may (without charge and to the exclusion of all other Persons including the Guarantor) enter upon any location where the Guarantor carries on business or where any of the Intellectual Property is located.
- (c) **Realization.** The Lender or a Receiver may use, collect, sell, lease or otherwise dispose of, realize upon, release to the Guarantor or other Persons and otherwise deal with, the Intellectual Property in such manner, upon such terms (including among other things by arrangement

providing for deferred payment) and at such times as the Lender or the Receiver considers appropriate. The Lender or the Receiver may make any sale, lease or other disposition of the Intellectual Property in the name of and on behalf of the Guarantor or otherwise.

- (d) **Application of Proceeds After Default.** All Proceeds of Intellectual Property received by the Lender or a Receiver may be applied to discharge or satisfy any expenses (including among other things the Receiver's remuneration and other expenses of enforcing the Lender's rights under this Agreement), Charges, borrowings, taxes and other outgoings affecting the Intellectual Property or which are considered advisable by the Lender or the Receiver to preserve, repair, process, maintain or enhance the Intellectual Property or prepare it for sale, lease or other disposition, or to keep in good standing any mortgage, charge, pledge, lien, encumbrance or security interest on the Intellectual Property ranking in priority to any mortgage, charge, pledge, lien, encumbrance or security interest created by this Agreement, or to sell, lease or otherwise dispose of the Intellectual Property. The balance of such proceeds will be applied to the Obligations in such manner and at such times as the Lender considers appropriate and thereafter will be accounted for as required by law.

3.3 **Other Legal Rights.** Before and after Default, the Lender will have, in addition to the rights specifically provided in this Agreement, the rights of a secured party under the *Personal Property Security Act* (Ontario), as well as the rights recognized at law and in equity. No right will be exclusive of or dependent upon or merge in any other right, and one or more of such rights may be exercised independently or in combination from time to time.

3.4 **Deficiency.** The Guarantor will remain liable to the Lender for payment of any Obligations that are outstanding following realization of all or any part of the Intellectual Property.

3.5 **The Lender not Liable.** The Lender will not be liable to the Guarantor or any other Person for any failure or delay in exercising any of its rights under this Agreement (including among other things any failure to take possession of, collect, or sell, lease or otherwise dispose of, any Intellectual Property).

#### Article 4 - General

4.1 **Power of Attorney.** The Guarantor hereby constitutes and appoints the Lender and any officer or agent of the Lender in accordance with the *Powers of Attorney Act* (Ontario), with full power of substitution from time to time, as the Guarantor's true and lawful attorney-in-fact, with full power and authority in the name and on behalf of the Guarantor to take any appropriate action and to execute such assignments, transfers, registrations, agreements, licences, assurances, documents and instruments which the Guarantor ought to execute and do, and which the Guarantor has not taken or executed or done after being given a reasonable time to do so, under the covenants and provisions contained in this Agreement and generally to use the name of the Guarantor in the exercise of all or any of the powers hereby conferred on the Lender and the Guarantor declares this to be a general power of attorney in the widest respect. This power of attorney shall not be revoked or terminated by any act or instrument other than the termination of this Agreement in accordance with Section 3.2.

4.2 **Termination of this Agreement.** Upon fulfillment by the Guarantor of its obligations, indebtedness and liabilities under Guarantee and/or the Credit Agreement, this Agreement shall be and

become fully ended and terminated and all right, title and interest in and in respect of the Intellectual Property secured by the Guarantor hereunder shall be released and all covenants and agreements of the Guarantor hereunder shall be at an end and the Lender shall, upon the written request of the Guarantor and at the expense of the Guarantor, execute such instruments and other documents and give such notifications or assurances as may be necessary to fully release, cancel and discharge this Agreement in the circumstances.

**4.3 Rights and Remedies Cumulative.** The rights or remedies given to the Lender hereunder shall be cumulative of and not substituted for any rights or remedies to which Lender may be entitled under the Loan Documents, or any other agreement or security provided to the Lender in connection with the Loan Documents or with respect to the Obligations, or under statute or at law and may be exercised whether or not the Lender has pursued or is then pursuing any other such rights and remedies.

**4.4 Further Assurances.** The Guarantor shall do, perform, execute and deliver all acts, deeds, documents and assurances as may be necessary from time to time to give full force and effect to the intent of this Agreement; including, without limitation, the delivery of any additional security documents to further or better provide for a security interest in favour of the Lender in all intellectual property rights which the Guarantor may hold from time to time.

**4.5 Time of Essence.** Time shall be of the essence of this Agreement.

**4.6 Notices.** Any notice, request or other communication hereunder to any of the parties hereto shall be in writing and be well and sufficiently given if delivered personally or sent by prepaid registered mail to its address or by telecopier to the number and to the attention of the person set forth below:

In the case of the Guarantor:

COM DEV Ltd.  
c/o COM DEV International Ltd.  
155 Sheldon Drive  
Cambridge, Ontario N1R 7H6  
Attention: Chief Financial Officer  
Facsimile: (519) 622-3975

with a copy to:

Gardiner Roberts LLP  
Barristers & Solicitors  
Suite 3100, Scotia Plaza  
40 King St. W.  
Toronto, Ont. M5H 3Y2  
Attention: Edgar Hielema  
Facsimile: (416) 865-6636



In the case of the Lender:

Canadian Imperial Bank of Commerce  
Commerce Court West  
199 Bay Street, Third Floor  
Toronto, Ontario M5L 1A2  
Attention: Manager, Commercial Credit  
Facsimile: (416) 861-9295

and

Canadian Imperial Bank of Commerce  
1 King Street East, Suite 200  
Kitchener, Ontario N2H 6N2  
Attention: Director, Knowledge Based Business  
Facsimile: (519) 742-0668

with a copy to:

Gowling Lafleur Henderson LLP  
Barristers & Solicitors  
1020-50 Queen Street North  
Kitchener, Ontario N2H 6M2  
Attention: W. David Petras  
Facsimile: (519) 571-5006

Any such notice shall be deemed to be given and received, if delivered, when delivered, and if mailed, on the third Business Day following the date on which it was mailed (unless an interruption of postal services occurs or is continuing on or within the three Business Days after the date of mailing in which case the notice shall be deemed to have been received on the third Business Day after postal service resumes), and if sent by telecopier on the next Business Day after the day on which the telecopy is sent. Either party may by notice to the other, given as aforesaid, designate a changed address or telecopier number.

4.7 **Waiver.** No consent or waiver, express or implied, by the Lender to or of any breach or default by the Guarantor in the performance of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance by the Guarantor hereunder. Failure on the part of the Lender to complain of any act or failure to act of the Guarantor or to declare the Guarantor in default, irrespective of how long such failure continues, shall not, by itself, constitute a waiver by the Lender of the Lender's rights hereunder.

4.8 **Amendments.** This Agreement may not be modified or amended except with the written consent of the Guarantor and the Lender.

4.9 **Counterparts.** This Agreement may be executed in any number of counterparts with the same effect as if all parties hereto had all signed the same document. All counterparts shall be construed together and shall constitute one and the same original agreement.

4.10 **Transmission by Facsimile.** Delivery of this Agreement by facsimile transmission shall constitute valid and effective delivery.

**IN WITNESS WHEREOF** each of the parties hereto has duly executed this Agreement as of the day and year first above written.

**COM DEV LTD.**

By: 

Name:

Title:

I have authority to bind the Corporation.

**CANADIAN IMPERIAL BANK OF COMMERCE**

By: 

Name: Mike Moore

Title: Director, Knowledge Based Business

By:

Name: Guillaume Couture

Title: Manager Commercial Credit, Knowledge Based Business

We have authority to bind the Bank.

::ODMA\PCDOCS\WAT\_LAW\63917\6

4.10 **Transmission by Facsimile.** Delivery of this Agreement by facsimile transmission shall constitute valid and effective delivery.

**IN WITNESS WHEREOF** each of the parties hereto has duly executed this Agreement as of the day and year first above written.

**COM DEV LTD.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

I have authority to bind the Corporation.

**CANADIAN IMPERIAL BANK OF  
COMMERCE**

By: \_\_\_\_\_

Name: Mike Moore

Title: Director, Knowledge Based Business

By: \_\_\_\_\_

Name: Guillaume Couture

Title: Manager Commercial Credit, Knowledge  
Based Business

We have authority to bind the Bank.

ODMA\PCDOCS\WAT\_LAW\64359\1

SCHEDULE A

INTELLECTUAL PROPERTY  
TRADEMARKS

COM DEV Ltd. Trademarks

Word Mark	Countries		Filing Date (Y/M/D)	Serial #	Registration Date (Y/M/D)
BEAM LINK	USA		96/12/23	75217541	02/04/02
BEAM*LINK	USA		96/12/23	75218262	01/08/07

**SCHEDULE B**

**INTELLECTUAL PROPERTY  
COPYRIGHTS**

## SCHEDULE C

INTELLECTUAL PROPERTY  
PATENTS

## COM DEV Ltd. Patent Applications

Patent Title	Countries	Application Date (Y/M/D)	Application #
Informal Patent High Power Super conductive Circuits & Method of Construction thereof	U.K. European	94/12/28 95/12/28	9426294.6 95309491.9
Method and Structure for High Power HTS Transmission Lines using strips separated by a gap	Europe (UK,Fr,Ger,Ital)	96/05/01	96,303,075.4
Informal Patent Application for CCD Camera System with Reconfigurable Hardware and Method of Operation	U.K.	95/04/18	9507840.8
A Folded Single Mode Dielectric Resonator Filter with Couplings between Adjacent Resonators and Cross Diagonal Couplings between Non-Sequential Contiguous Resonators	PCT Internat. (UK,Fr,Ger,Ital)	95/03/30	95/00177
Repeaters for Multibeam Satellites	Europe Norway	96/08/13 96/08/26	96113034.1 963548
Planar Dual Mode Filters and a Method of Construction thereof	Europe	98/02/11	98300979.6
Improvements in Intersatellite Communications Systems (FSS Processor + ISL)	Norway Europe (GB,IT,FR,DE)	96/12/12 96/12/10 97/06/25	965313 96119806.6 0780998
Non-etched High Power HTS Circuits & Method of Construction thereof	Europe Canada	98/03/11 98/04/30	98301812.8 2,236,395
Micro-Strip Switches: High Temp Superconductive Switches & Method	Europe (GB,IT,FR,DE)	98/11/11	98309240.4
Digital transmultiplexers with Automatic Threshold Controller	U.S.		5,245,340
Analog Processor for Digital Satellites	Norway	97/08/15	973760
Compact Redundancy Combiner Assembly	Europe Canada	98/09/14 98/09/11	98307405.5 2,246,929
Superconductive Non-Linear Transmission Lines	Canada	99/12/14	2,291,470
Low Loss SAW Filters with non-sequential coupling & method of operation Thereof	Europe	99/07/27	99305971.6

# SCHEDULE C

## INTELLECTUAL PROPERTY PATENTS

Patent Title	Patent Applications List CIBC Nov 25 2002.xls Countries	Application Date (Y/M/D)	Application #
LCI) Refractive Achromatic Lens for 1.4-1.6 UM Spectral range	U.S.	98/10/21	60/105151
J.S.Prov. Apparatus & Method for Enhancing the Isolation of an MMIC Cross-Point Switch(Romano)	U.S. Europe	99/06/24 99/06/25	09/339252 99305020.2
microwave Switch & Method of Oper.	Europe	98/11/11	98309240.4
scattering Parameter Calibration System &Method	Europe Internat.PCT Canada	00/02/01 00/02/01 00/02/01	6,300775 B1 PCT/CA00/00087 2,361,666
corrugated Waveguide Filter having Coupled Resonator Cavities	Europe	00/05/08	EP105272 A2
Waveguide filter having asymmetrically corrugated resonators	National Canada PCT Canada & U.S. Europ PCT	00/03/10 00/03/10 01/09/11	2367393 PCT /CA00/00262 00912281.3
Filter Utilizing a Coupling Bar	Europe Japan	02/07/03 02/03/15	962108.7/ 1218959 2001-525795
Surface Treatment & Method for applying surface treatment to suppress secondary electron emission	Japan/ PCT Europe Eur. Regional	00/11/29 02/05/17	PCT /CA00/01423 00984671.8
Quasi Dual-Mode Resonators	U.S. Provisional Eur.Regional PCT All Europe	99/12/6 00/12/06 02/06/05	60/169,078 PCT/ CA00/01453 PCT/ CA00/01453
microwave Resonator Having an External Temperature compensator	U.S. Provisional Japan Europe	00/08/29 01/08/29 01/08/28	09/650,522 2001-260398 1120503.6
Electrically-Coupled Microwave Filter With Circumferentially-Spaced Elements	Canada Europe(G,FR,UK)	01/08/28 01/08/28	2,356,139 01120504.4
microwave Filter having a temperature compensating element Thermal Stabilization technique (Dunstable)	U.S.	02/04/16	10/123,654
Modified Conductor Loaded Cavity Resonator with Improved Thermal Performance	U.S. Canada PCT Europe	00/12/11 01/12/11 01/12/11	10/006,155 2,363,603 01310351.0
Stable Waveguide Assembly	US	02/06/20	60/389,931

**SCHEDULE C**  
**INTELLECTUAL PROPERTY**  
**PATENTS**

STATUS LIST OF ALL PATENTS AWARDED TO COM DEV LTD.  
Patent List CIBC Nov 25 20022.xls

Patent Title	Countries	Patent Granted (Y/M/D)	Patent #
Cascade Waveguide Triple Mode Filters	U.S.A.	86/12/16	4,630,009
Odd order Elliptic Waveguide Cavity Filters	Canada	86/07/29	1,208,717
	USA	87/02/17	4,644,305
Waveguide Manifold Coupled Multiplexer	USA	86/09/30	4,614,920
Triple-Mode Dielectric Loaded Cascaded Cavity Bandpass Filters	Canada	86/07/02	1,207,040
Triple-Mode Dielectric Loaded Bandpass Filter	USA	87/06/23	4,675,630
Stacked Ferrite Resonance Isolator	Canada	87/01/27	1,217,247
R-Switch With Transformers	Canada	88/01/19	1,231,760
	USA	89/02/21	4,806,887
	Europe	94/03/9	0276582
Quadruple Mode Filter	Canada	87/02/17	1,218,122
Electronically Scanned Radar System	Canada	88/04/05	1,234,903
Dielectrically Stabilized GaAs FET Oscillator with Two Power Output Terminals	Canada	89/04/25	1,253,222
Reconfigurable Beam-Forming Network that Provides In-Phase Power to each Region	Canada	87/09/15	1,226,934
Frequency Scanning Radiometer	Canada	88/04/05	1,234,911
Dielectric Image-Resonator Multiplexer	Canada	89/03/28	1,251,835



**SCHEDULE C**  
**INTELLECTUAL PROPERTY**  
**PATENTS**

**STATUS LIST OF ALL PATENTS AWARDED TO COM DEV LTD.**

Patent List CIBC Nov 25 20022.xls

Patent Title	Countries	Patent Granted (Y/M/D)	Patent #
Corrugated Polarizers Comprising Short Sections of Alternatingly Circular & Rectangular Waveguides Connected in Tandem	Canada	89/03/14	1,251,267
Microwave C-Switches and S-Switches	Canada	91/04/30	1,283,680
	USA	89/07/25	4,851,801
C-, S- & T-Switches Operated by Permanent Magnets	Canada	92/11/03	2,014,585
	Europe (Germany, U.K., France, Italy)	96/03/06	0451974 ;691 17 558.6-08Ger
	USA	91/11/12	5,065,125
C-, T- and S-Switches that are Mechanically operated by a Rotary Actuator	Canada	92/06/09	2,014,584
	Europe (Germany, U.K., France, Italy)	96/02/28	0451975; 691 17 320.6-08Ger
	USA	91/11/05	5,063,364
Dual-Mode Filters Using Dielectric Resonators with Apertures	Canada	93/04/13	2,048,404
	USA	93/04/06	5,200,721
Filterbank Using Surface Acoustic Wave Technology	Canada	95/12/05	2,069,369
	USA	94/07/26	5,332,983
Interdigital Transducer for use in a Surface Acoustic Wave Filter	Canada	95/12/05	2,069,370
	USA	94/09/06	5,345,135
Radio Frequency Switch and Method of Operation	Canada	95/07/18	2,099,147
	USA	96/03/12	5,499,006
Power Divide/Combiner with Lumped Element Bandpass Filter	Canada	95/11/07	2,103,763
	USA	96/02/06	5,489,880
Miniaturized Superconducting Dielectric Resonator Filters and Method of Operation Thereof	USA	96/03/12	5,498,771
	USA contin.	96/12/17	5,585,331

# SCHEDULE C

## INTELLECTUAL PROPERTY PATENTS

### STATUS LIST OF ALL PATENTS AWARDED TO COM DEV LTD.

Patent List CIBC Nov 25 20022.xls

Patent Title	Countries	Patent Granted (Y/M/D)	Patent #
	Canada	97/05/20	2,136,894
Planar Multi-Resonator Bandpass Filter	Canada	96/07/02	2,126,468
	USA	98/07/28	5,786,303
Multi-Mode Temperature Compensated Filters & Method of Construct. & Compensating therefor	Canada	96/03/19	2,127,609
	USA	96/12/31	5,589,807
Voltage Controlled Superconducting Microwave Switch & Method of Operation thereof	Canada	97/04/08	2,118,141
	USA	98/11/24	5,841,342
Informal Patent High Power Super conductive Circuits & Method of Construction thereof	Canada	98/02/24	2,166,014
	USA	00/03/21	6,041,245
Method and Structure for High Power HTS Transmission Lines using strips separated by a gap	Canada	97/02/04	2,148,341
	USA	99/07/13	5,922,650
Informal Patent for Dispersion Compensation Technique and Apparatus for Microwave Filters	USA	98/04/14	5,739,733
	Canada	97/04/29	2,173,036
CCD Camera System with Reconfigurable Hardware & method of Operation	USA	98/05/19	5,754,422
A Folded Single Mode Dielectric Resonator Filter with Couplings between Adjacent Resonators and Cross Diagonal Couplings between Non-Sequential Contiguous Resonators	USA	97/03/04	5,608,363
	Canada	98/12/15	2,186,948
Switching Networks associated with multi-beam communications satellite repeaters (FSS Processors)	Canada	01/04/10	2,157,209
	USA	98/10/13	5,822,312

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Patent List CIBC Nov 25 20022.xls

Patent Title	Countries	Patent Granted (Y/M/D)	Patent #
Planar Dual Mode Filters and a Method of Construction thereof	Canada	98/11/17	2,197,253
	USA	99/11/23	5,990,765
Improvements in Intersatellite Communications Systems (FSS Processor + ISL)	Canada	01/03/13	2,165,875
	USA	98/10/20	5,825,325
Patent Applic. for Temperature Compensated Microwave Filter	Canada	98/10/06	2,187,829
	USA	99/02/02	5,867,077
Non-etched High Power HTS Circuits and Method Of Construction thereof	USA	01/07/17	6,263,220
Micro-strip Switches High Temp Superconductive Switches & Method	USA	02/05/21	6,393,309 B1
	Canada	00/07/18	2,251,517
Stripline Coupling Structure for High Power HTS Filters of the Split Resonator Type	USA	00/05/23	6,067,461
	Canada	98/09/29	2,203,444
Filters with Temperature Compensated Tuning Screws	Canada	99/01/19	2,206,942
Optimal Circular Waveguide Cavity & Filter having an Iris with an Eccentric Circular Aperture & Method of Construction Thereof	Canada	99/08/03	2,206,966
	USA	99/12/21	6,005,457
Analog Processor for Digital Satellites	USA	99/09/21	5,956,620
	USA Continuation	02/06/18	6,408,164
Regional Programming via DBS or DTH Satellites	USA	00/04/04	6,047,162
	USA Continuation	01/07/24	6,266,329
Optical Front-End for a Free-Space Lasercom Terminal	USA	01/07/31	6,268,944
Integrated Printed Lumped Element Stripline Power Splitter/Combiner Network	USA	99/07/27	5,929,729
	USA Divis.	01/01/09	6,170,154 B1

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## INTELLECTUAL PROPERTY PATENTS

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Patent List CIBC Nov 25 20022.xls

Patent Title	Countries	Patent Granted (Y/M/D)	Patent #
Collapsible Pocket for Changing the Operating Frequency of a Microwave Filter and a Filter Using the Device	Canada USA	00/04/11 00/04/11	2,217,924 6,049,261
Compact Redundancy Combiner Assembly	USA	00/05/30	6,069,529
Superconductive Non-Linear Transmission Lines	USA	02/11/12	6,480,728
Low Loss SAW Filters with non-sequential coupling & method of Operation Thereof	USA	99/07/27	5,929,724
Managing Inter-satellite connections in a constellation with overlapping orbital planes	USA	01/06/19	6,249,513
Apparatus & Method for Enhancing the Isolation of an MMIC Cross-Point Switch	USA	01/07/24	6,265,953
Microwave Switch & Method of Oper.	Canada	00/07/18	2,251,517
Scattering Parameter Calibration System & Method	USA	01/10/09	6,300,775
Corrugated Waveguide Filter having Coupled Resonator Cavities	USA	00/01/02	6,169,466
Waveguide filter having asymmetrically corrugated resonators	USA	01/05/15	6,232,853
Filter Utilizing a Coupling Bar	USA	01/07/03	6,255,919
Surface Treatment & Method for applying surface treatment to suppress secondary electron emission	USA	01/01/30	6,179,976
Side-Coupled Microwave Filter With Circumferentially Spaced Irises	USA	02/10/01	6,459,346