

FILE COPY



**CERTIFICATE OF INCORPORATION
OF A PRIVATE LIMITED COMPANY**

Company No. 4561127

The Registrar of Companies for England and Wales hereby certifies that
APPLIED WAVE RESEARCH LIMITED

is this day incorporated under the Companies Act 1985 as a private
company and that the company is limited.

Given at Companies House, Cardiff, the 11th October 2002



N04561127D



THE OFFICIAL SEAL OF THE
REGISTRAR OF COMPANIES



Companies House
— for the record —

12

CHFP025

APPLIED WAVE RESEARCH LIMITED

of KETT HOUSE, STATION ROAD, CAMBRIDGE CB1 2JY

do solemnly and sincerely declare that I am a [Solicitor engaged in the formation of the company], [person named as director or secretary of the company] or the statutory officer of the company, and that all the requirements of the Companies Act 1985 in respect of the registration of the above company and of matters precedent and incidental to it have been complied with.

Declarant's signature

Day Month Year

On

before me ❶

Signed

Date _____

Eversheds
Kett House, Station Road, Cambridge, CB1 2JY

GS/133602.010001.176427

Tel 01223 443666

DX number DX 5807

DX exchange Cambridge

When you have completed and signed the form please send it to the Registrar of Companies at:

Companies House, Crown Way, Cardiff, CF14 3UZ DX 33050 Cardiff
for companies registered in England and Wales

Companies House, 37 Castle Terrace, Edinburgh, EH1 2EB

for companies registered in Scotland

DX 235 Edinburgh



A30
COMPANIES HOUSE

0592
10/10/02

Package: 'Laserform'
by Laserform International Ltd.

10

Please complete in typescript,
or in bold black capitals.

CHFP025

First directors and secretary and intended situation of registered office

Notes on completion appear on final page

Company Name in full

APPLIED WAVE RESEARCH LIMITED

Proposed Registered Office

(PO Box numbers only, are not acceptable)

KETT HOUSE

STATION ROAD

Post town

CAMBRIDGE

County / Region

CAMBRIDGESHIRE

Postcode

CB1 2JY

If the memorandum is delivered by
an agent for the subscriber(s) of
the memorandum mark the box opposite
and give the agent's name and address.

X

Agent's Name

EVERSHEDS

Address

KETT HOUSE

STATION ROAD

Post town

CAMBRIDGE

County / Region

CAMBRIDGESHIRE

Postcode

CB1 2JY

Number of continuation sheets attached

Please give the name, address,
telephone number and, if available,
a DX number and Exchange of
the person Companies House should
contact if there is any query.

Eversheds

Kett House, Station Road, Cambridge, CB1 2JY

GS/133602.010001172211

Tel 01223 443666

DX number DX 5807

DX exchange Cambridge

When you have completed and signed the form please send it to the
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for companies registered in England and Wales

or

Companies House, 37 Castle Terrace, Edinburgh, EH1 2EB

for companies registered in Scotland

DX 235 Edinburgh



Company Secretary (see notes 1-5)

Company name

APPLIED WAVE RESEARCH LIMITED

NAME

*Style / Title

MR

*Honours etc

—

* Voluntary details

Forename(s)

DANE

Surname

COLLINS

Previous forename(s)

—

Previous surname(s)

—

Address

1956 PALO SANTO DRIVE

Usual residential address

For a corporation, give the registered or principal office address.

Post town

CAMP BELL

County / Region

CALIFORNIA

Postcode

95008

Country

UNITED STATES OF AMERICA.

I consent to act as secretary of the company named on page 1

Consent signature



Date

Sept. 24, 2002

Directors (see notes 1-5)

Please list directors in alphabetical order

NAME

*Style / Title

PRESIDENT & CEO

*Honours etc

—

Forename(s)

JAMES

Surname

SPOTO

Previous forename(s)

—

Previous surname(s)

—

Address

7 ORION

Usual residential address

For a corporation, give the registered or principal office address.

Post town

IRVINE

County / Region

CALIFORNIA

Postcode

92612

Country

UNITED STATES OF AMERICA

Day Month Year

Date of birth

06 08 1950

Nationality

U.S.A.

Business occupation

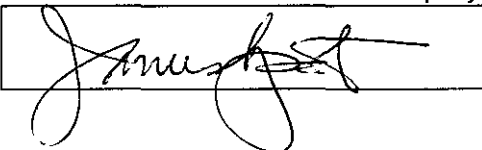
EXECUTIVE MANAGEMENT

Other directorships

MEMSCAP S.A.

I consent to act as director of the company named on page 1

Consent signature



Date

24-09-02

Notes

1. Show for an individual the full forename(s) NOT INITIALS and surname together with any previous forename(s) or surname(s).

If the director or secretary is a corporation or Scottish firm - show the corporate or firm name on the surname line.

Give previous forename(s) or surname(s) except that:

- for a married woman, the name by which she was known before marriage need not be given,
- names not used since the age of 18 or for at least 20 years need not be given.

A peer, or an individual known by a title, may state the title instead of or in addition to the forename(s) and surname and need not give the name by which that person was known before he or she adopted the title or succeeded to it.

Address:

Give the usual residential address.

In the case of a corporation or Scottish firm give the registered or principal office.

Subscribers:

The form must be signed personally either by the subscriber(s) or by a person or persons authorised to sign on behalf of the subscriber(s).

2. Directors known by another description:

- A director includes any person who occupies that position even if called by a different name, for example, governor, member of council.

3. Directors details:

- Show for each individual director the director's date of birth, business occupation and nationality.

The date of birth must be given for every individual director.

4. Other directorships:

- Give the name of every company of which the person concerned is a director or has been a director at any time in the past 5 years. You may exclude a company which either **is or at all times during the past 5 years, when the person was a director, was:**
- dormant,
- a parent company which wholly owned the company making the return,
- a wholly owned subsidiary of the company making the return, or
- another wholly owned subsidiary of the same parent company.

If there is insufficient space on the form for other directorships you may use a separate sheet of paper, which should include the company's number and the full name of the director.

5. Use Form 10 continuation sheets or photocopies of page 2 to provide details of joint secretaries or additional directors.

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10 000
10 000

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THE COMPANIES ACTS 1985 and 1989
PRIVATE COMPANY LIMITED BY SHARES

MEMORANDUM OF ASSOCIATION
OF
APPLIED WAVE RESEARCH LIMITED



1. The Company's name is "Applied Wave Research Limited".
2. The Company's registered office is to be situated in England and Wales.
3. The Company's objects are:
 - 3.1 (a) to carry on business as a general commercial company; and
 - (b) to carry out all or any of the businesses of general merchants and traders, cash and credit traders, manufacturers' agents and representatives, insurance brokers and consultants, estate and advertising agents, mortgage brokers, financial agents, advisers, managers and administrators, hire purchase and general financiers, brokers and agents, commission agents, importers and exporters, manufacturers, retailers, wholesalers, buyers, sellers, distributors and shippers of, and dealers in all products, goods, wares, merchandise and produce of every description; to participate in, undertake, perform and carry on all kinds of commercial, industrial, trading and financial operations and enterprises; to carry on all or any of the businesses of marketing and business consultant, advertising agents and contractors, general storekeepers, warehousemen, discount traders, mail order specialists, railway, shipping and forwarding agents, shippers, traders, capitalists and financiers either on the Company's own account or otherwise, printers and publishers; haulage and transport contractors, garage proprietors, operators, hirers and letters on hire of, and dealers in motor and other vehicles, craft, plant, machinery, tools and equipment of all kinds; and to purchase or otherwise acquire and take over any businesses or undertakings which may be deemed expedient, or to become interested in, and to carry on or dispose of, remove or put an end to the same or otherwise deal with any such businesses or undertakings as may be thought desirable;
- 3.2 to carry on any other trade or business whatever which can in the opinion of the board of directors be advantageously carried on in connection with or as being ancillary to any of the businesses or activities of the Company;
- 3.3 to purchase or by any other means acquire and take options over any property whatever, and any rights or privileges of any kind over or in respect of any property;
- 3.4 to apply for, register, purchase, or by other means acquire and protect, prolong and renew, whether in the United Kingdom or elsewhere any patents, patent rights,

brevets d'invention, licences, secret processes, trade marks, designs, protections and concessions and to disclaim, alter, modify, use and turn to account and to manufacture under or grant licences or privileges in respect of the same, and to expend money in experimenting upon, testing and improving any patents, inventions or rights which the Company may acquire or propose to acquire;

- 3.5 to acquire and undertake the whole or any part of the business, goodwill and assets of any person, firm or company carrying on or proposing to carry on any of the businesses which the Company is authorised to carry on and as part of the consideration for any such acquisition to undertake all or any of the liabilities of such person, firm or company, or to acquire an interest in, amalgamate with, or enter into partnership or into any arrangement for sharing profits, or for co-operation, or for mutual assistance with any such person, firm or company, or for subsidising or otherwise assisting any such person, firm or company, and to give or accept, by way of consideration for any of the acts or things aforesaid or property acquired, any shares, debentures, debenture stock or securities that may be agreed upon, and to hold and retain, or sell, mortgage and deal with any shares, debentures, debenture stock or securities so received;
- 3.6 to improve, manage, construct, repair, develop, exchange, let on lease or otherwise, mortgage, charge, sell, dispose of, turn to account, grant licences, options, rights and privileges in respect of, or otherwise deal with all or any part of the property and rights of the Company;
- 3.7 to invest and deal with the moneys of the Company not immediately required in such manner as may from time to time be determined by the board of directors and to hold or otherwise deal with any investments made;
- 3.8 to lend and advance money or give credit on any terms and with or without security to any person, firm or company (including without prejudice to the generality of the foregoing any holding company, subsidiary or fellow subsidiary of, or any other company associated in any way with, the Company) and to receive money on deposit or loan upon any terms;
- 3.9 to guarantee or otherwise support or secure, either with or without the Company receiving any consideration or advantage and whether by personal covenant or by mortgaging or charging all or any part of the undertaking, property, assets, rights and revenues (present and future) and uncalled capital of the Company, or by both such methods or by any other means whatever, the performance of the liabilities and obligations of and the repayment or payment of any moneys whatever by any person, firm or company, including (but not limited to):
 - 3.9.1 any liabilities and obligations whatever of, and the repayment or payment of any moneys whatever by, any company which is for the time being or is likely to become the Company's holding company or a subsidiary of the Company or another subsidiary of the Company's holding company or otherwise associated with the Company in business; and
 - 3.9.2 any liabilities and obligations incurred in connection with or for the purpose of the acquisition of shares in the Company or in any company which is for

the time being the Company's holding company in so far as the giving of any such guarantee or other support or security is not prohibited by law; and

- 3.9.3 the repayment or payment of the principal amounts of, and premiums, interest and dividends on, any borrowings and securities;
- 3.10 to borrow and raise money in any manner and to secure the repayment of any money borrowed, raised or owing by mortgage, charge, standard security, lien or other security upon the whole or any part of the Company's property or assets (whether present or future), including its uncalled capital, and also by a similar mortgage, charge, standard security, lien or security to secure and guarantee the performance by the Company of any obligation or liability it may undertake or which may become binding on it;
- 3.11 to draw, make, accept, endorse, discount, negotiate, execute and issue cheques, bills of exchange, promissory notes, bills of lading, warrants, debentures, and other negotiable or transferable instruments;
- 3.12 to apply for, promote, and obtain any Act of Parliament, order, or licence of the Department of Trade or other authority for enabling the Company to carry any of its objects into effect, or for effecting any modification of the Company's constitution, or for any other purpose which may seem to the board of directors to be calculated directly or indirectly to promote the Company's interests, and to oppose any proceedings or applications which may seem to such board to be calculated directly or indirectly to prejudice the Company's interests;
- 3.13 to enter into any arrangements with any government or authority (supreme, municipal, local, or otherwise) that may seem to the board of directors to be conducive to the attainment of the Company's objects or any of them, and to obtain from any such government or authority any charters, decrees, rights, privileges or concessions which such board may think desirable and to carry out, exercise, and comply with any such charters, decrees, rights, privileges and concessions;
- 3.14 to subscribe for, take, purchase, or otherwise acquire, hold, sell, deal with and dispose of, place and underwrite shares, stocks, debentures, debenture stocks, bonds, obligations or securities issued or guaranteed by any other company constituted or carrying on business in any part of the world, and debentures, debenture stocks, bonds, obligations or securities issued or guaranteed by any government or authority, municipal, local or otherwise, in any part of the world;
- 3.15 to control, manage, finance, subsidise, co-ordinate or otherwise assist any company or companies in which the Company has a direct or indirect financial interest, to provide secretarial, administrative, technical, commercial and other services and facilities of all kinds for any such company or companies and to make payments by way of subvention or otherwise and any other arrangements which may seem to the board of directors to be desirable with respect to any business or operations of or generally with respect to any such company or companies;
- 3.16 to promote any other company for the purpose of acquiring the whole or any part of the business or property or undertaking or any of the liabilities of the Company, or of undertaking any business or operations which may appear to the board of directors to

be likely to assist or benefit the Company or to enhance the value of any property or business of the Company, and to place or guarantee the placing of, underwrite, subscribe for, or otherwise acquire all or any part of the shares or securities of any such company as aforesaid;

- 3.17 to sell or otherwise dispose of the whole or any part of the business or property of the Company, either together or in portions, for such consideration as the board of directors may think fit, and in particular (but without limitation) for shares, debentures, or securities of any company purchasing the same;
- 3.18 to act as agent or broker and as trustee or nominee for any person, firm or company, and to undertake and perform sub-contracts;
- 3.19 to remunerate any person, firm or company rendering services to the Company either by cash payment or by the allotment to him or them of shares or other securities of the Company credited as paid up in full or in part or otherwise;
- 3.20 to pay all or any expenses incurred in connection with the promotion, formation and incorporation of the Company, or to contract with any person, firm or company to pay the same, and to pay commissions to brokers and others for underwriting, placing, selling, or guaranteeing the subscription of any shares or other securities of the Company;
- 3.21 to provide, and to establish and maintain or concur in establishing and maintaining trusts, funds, schemes, clubs or other arrangements (whether contributory or non-contributory) with a view to providing:
 - 3.21.1 pensions, insurances, allowances, gratuities, bonuses and incentives and benefits of every description including, but not limited to, retirement benefits schemes and/or life assurance schemes; and
 - 3.21.2 employees' share schemes (within the meaning of section 743 of the Companies Act 1985) including, but not limited to, profit sharing, share option and share purchase schemes,to or for the benefit of officers, ex-officers, employees or ex-employees of the Company or its predecessors in business or of any company which is for the time being or has at any time been the Company's holding company or a subsidiary of the Company or another subsidiary of that holding company or of any predecessor in business of any such company or the dependants or relatives of any such persons; and to provide or lend money or provide other financial assistance in accordance with or for the purposes of such arrangements;
- 3.22 to support (whether by direct subscription, the giving of guarantees or otherwise) any charitable, benevolent or educational fund, institution or organisation, or any event or purpose of a public or general nature, the support of which will or may, in the opinion of the board of directors, directly or indirectly benefit, or is calculated so to benefit, the Company or its business or activities or its officers, ex-officers, employees or ex-employees or the business, activities, officers, ex-officers, employees or ex-employees of any company which is for the time being or has at any time been the Company's holding company or a subsidiary of the Company or

another subsidiary of that holding company or the officers, ex-officers, employees or ex-employees of any predecessor in business of the Company or any such company as aforesaid;

- 3.23 subject to and in accordance with a due compliance with the provisions of sections 155 to 158 (inclusive) of the Act (if and so far as such provisions shall be applicable), to give, whether directly or indirectly, any kind of financial assistance (as defined in section 152(1)(a) of the Act) for any such purpose as is specified in section 151(1) and/or section 151(2) of the Act;
- 3.24 to purchase and maintain, for the benefit of any director (including an alternate director), officer or auditor of the Company or of any company which is the holding company, a subsidiary, or a fellow subsidiary of the Company, insurance against any liability as is referred to in section 310(1) of the Act and, subject to the provisions of the Act, against any other liability which may attach to him or loss or expenditure which he may incur in relation to anything done or alleged to have been done or omitted to be done as a director (including an alternate director), officer or auditor and, subject also to the provisions of the Act, to indemnify any such person out of the assets of the Company against all losses or liabilities which he may sustain or incur in or about the lawful execution of the duties of his office or otherwise in relation thereto and, without prejudice to the foregoing, to grant any such indemnity after the occurrence of the event giving rise to any such liability;
- 3.25 to distribute among the members of the Company in kind any property of the Company of whatever nature;
- 3.26 to procure the Company to be registered or recognised in any part of the world;
- 3.27 to do all or any of the things or matters aforesaid in any part of the world and either as principal, agent, contractor or otherwise, and by or through agents, brokers, sub-contractors or otherwise and either alone or in conjunction with others;
- 3.28 to do all such other things as may be deemed incidental or conducive to the attainment of the Company's objects or any of them;

AND so that:

- (a) none of the objects set out in any of the preceding sub-clauses of this **clause 3** shall be restrictively construed but the widest interpretation shall be given to each such object, and none of such objects shall, except where the context expressly so requires, be in any way limited or restricted by reference to or inference from any other object or objects set forth in such sub-clause, or by reference to or inference from the terms of any other sub-clause of this **clause 3**, or by reference to or inference from the name of the Company;
- (b) none of the preceding sub-clauses of this **clause 3** and none of the objects therein specified shall be deemed subsidiary or ancillary to any of the objects specified in any other such sub-clause, and the Company shall have as full a power to exercise each and every one of the objects specified in each sub-clause of this **clause 3** as though each such sub-clause contained the objects of a separate company;

- (c) the word "company" in this **clause 3**, except where used in reference to the Company, shall be deemed to include any partnership or other body of persons, whether incorporated or unincorporated and whether domiciled in the United Kingdom or elsewhere;
 - (d) in this **clause 3** the expressions "holding company" and "subsidiary" shall have the meanings given to them respectively by section 736 of the Act and the expression "subsidiaries" shall include a subsidiary undertaking as defined by section 258 of the Act; and
 - (e) in this **clause 3** the expression "the Act" means the Companies Act 1985, but so that any reference in this **clause 3** to any provision of the Act shall be deemed to include a reference to any statutory modification or re-enactment of that provision at the time this **clause 3** take effect.
- 4. The liability of the members is limited.
 - 5. The Company's share capital is £10,000 divided into 10,000 ordinary shares of £1 each.

The person whose name, address, and description subscribed, is desirous of being formed into a company in pursuance of this Memorandum of Association and agrees to take the number of shares in the capital of the Company set opposite its name.

Name	Address and description of Subscriber	Number of shares taken by the Subscriber
Applied Wave Research Inc <i>Applied Wave Research Inc</i>	1960 East Grand Avenue Suite 430 El Segundo California 90245 United States Company	10,000

Dated: ~~9/24/02~~ 24 September 2002

WITNESS TO THE ABOVE SIGNATURE:

Witness signature:



Name: *Dane Collins*

Address: *1960 East Grand Ave, Suite 430, El Segundo, CA 90245, USA*

Occupation: *Chief Operating Officer*

THE COMPANIES ACTS 1985 AND 1989
PRIVATE COMPANY LIMITED BY SHARES
ARTICLES OF ASSOCIATION
OF
APPLIED WAVE RESEARCH LIMITED

1. PRELIMINARY

The regulations contained in Table A in the Schedule to the Companies (Tables A to F) Regulations 1985 in force at the time of adoption of these Articles such Table being hereinafter called "Table A") shall apply to the Company save in so far as they are excluded or varied by these Articles and such regulations (save as so excluded or varied) and these Articles shall be the regulations of the Company.

2. INTERPRETATION

In these Articles and in Table A the following expressions have the following meanings unless inconsistent with the context:

"the Act"	The Companies Act 1985 including any statutory modification or re-enactment thereof for the time being in force
"these Articles"	these Articles of Association, whether as originally adopted or as from time to time altered by special resolution
"clear days"	in relation to the period of a notice means that period excluding the day when the notice is given or deemed to be given and the day for which it is given or on which it is to take effect
"the directors"	the directors for the time being of the Company or (as the context shall require) any of them acting as the board of directors of the Company
"executed"	includes any mode of execution
"the holder"	in relation to shares means the member whose name is entered in the register of members as the holder of the shares
"office"	the registered office of the Company
"seal"	the common seal of the Company (if any)

“secretary”

the secretary of the Company or any other person appointed to perform the duties of the secretary of the Company, including a joint, assistant or deputy secretary

“share”

includes any interest in a share

“the United Kingdom”

Great Britain and Northern Ireland.

Unless the context otherwise requires, words or expressions contained in these Articles and in Table A bear the same meaning as in the Act but excluding any statutory modification thereof not in force when these Articles become binding on the Company. Regulation 1 of Table A shall not apply to the Company.

3. SHARE CAPITAL

- 3.1 The authorised share capital of the Company at the time of incorporation of the Company is £10,000 divided into 10,000 ordinary shares of £1.00 each.
- 3.2 No shares comprised in the authorised share capital of the Company from time to time shall be issued without the consent in writing of the holder or holders (in aggregate) of a majority of the voting rights in the Company (within the meaning of section 736A(2) of the Act) nor shall any share be issued at a discount or otherwise be issued in breach of the provisions of these Articles or of the Act.
- 3.3 Regulation 4 of Table A and, in accordance with section 91(1) of the Act, sections 89(1) and 90(1) to (6) (inclusive) of the Act shall not apply to the Company.

4. LIEN

The Company shall have a first and paramount lien on all shares, whether fully paid or not, standing registered in the name of any person indebted or under liability to the Company, whether he shall be the sole registered holder thereof or shall be one of two or more joint holders, for all moneys presently payable by him or his estate to the Company. Regulation 8 of Table A shall be modified accordingly.

5. CALLS ON SHARES AND FORFEITURE

There shall be added at the end of the first sentence of regulation 18 of Table A, so as to increase the liability of any member in default in respect of a call, the words “and all expenses that may have been incurred by the Company by reason of such non-payment”.

6. TRANSFER OF SHARES

The first sentence in regulation 24 of Table A shall not apply to the Company. The words “They may also” at the beginning of the second sentence of that regulation shall be replaced by the words “The directors may”.

7. **GENERAL MEETINGS**

The directors may call general meetings and regulation 37 of Table A shall not apply to the Company.

8. **NOTICE OF GENERAL MEETINGS**

- 8.1 A notice convening a general meeting shall be required to specify the general nature of the business to be transacted only in the case of special business and regulation 38 of Table A shall be modified accordingly. The words "or a resolution appointing a person a director" and paragraphs (a) and (b) in regulation 38 of Table A shall be deleted and the words "in accordance with section 369(3) of the Act" shall be inserted after the words "if it is so agreed" in that regulation.
- 8.2 All business shall be deemed special that is transacted at an extraordinary general meeting, and also all that is transacted at an annual general meeting with the exception of declaring a dividend, the consideration of the profit and loss account, balance sheet, and the reports of the directors and auditors, the appointment of and the fixing of the remuneration of the auditors and the giving or renewal of any authority in accordance with the provisions of section 80 of the Act.
- 8.3 Every notice convening a general meeting shall comply with the provisions of section 372(3) of the Act as to giving information to members in regard to their right to appoint proxies; and notices of and other communications relating to any general meeting which any member is entitled to receive shall be sent to the directors and to the auditors for the time being of the Company.

9. **PROCEEDINGS AT GENERAL MEETINGS**

- 9.1 The words, "save that, if and for so long as the Company has only one person as a member, one member present in person or by proxy shall be a quorum" shall be added at the end of the second sentence of regulation 40 of Table A.
- 9.2 If a quorum is not present within half an hour from the time appointed for a general meeting the general meeting shall stand adjourned to the same day in the next week at the same time and place or to such other day and at such other time and place as the directors may determine; and if at the adjourned general meeting a quorum is not present within half an hour from the time appointed therefor the member or members present in person or by proxy or (being a body corporate) by representative and entitled to vote upon the business to be transacted shall constitute a quorum and shall have power to decide upon all matters which could properly have been disposed of at the meeting from which the adjournment took place. Regulation 41 of Table A shall not apply to the Company.

10. **VOTES OF MEMBERS**

- 10.1 Regulation 54 of Table A shall not apply to the Company. Subject to any rights or restrictions for the time being attached to any class or classes of shares, on a show of hands every member entitled to vote who (being an individual) is present in person or by proxy (not being himself a member entitled to vote) or (being a corporate body) is present by a representative or proxy (not being himself a member entitled to vote)

shall have one vote and, on a poll, every member shall have one vote for each share of which he is the holder.

10.2 The words "be entitled to" shall be inserted between the words "shall" and "vote" in regulation 57 of Table A.

10.3 A member shall not be entitled to appoint more than one proxy to attend on the same occasion and accordingly the final sentence of regulation 59 of Table A shall not apply to the Company. Any such proxy shall be entitled to cast the votes to which he is entitled in different ways.

11. **NUMBER OF DIRECTORS**

11.1 Regulation 64 of Table A shall not apply to the Company.

11.2 The maximum number and minimum number respectively of the directors may be determined from time to time by ordinary resolution. Subject to and in default of any such determination there shall be no maximum number of directors and the minimum number of directors shall be one.

12. **ALTERNATE DIRECTORS**

12.1 An alternate director shall be entitled to receive notice of all meetings of the directors and of all meetings of committees of the directors of which his appointor is a member (subject to his giving to the Company an address within the United Kingdom at which notices may be served on him), to attend and vote at any such meeting at which the director appointing him is not personally present, and generally to perform all the functions of his appointor at such meeting as a director in his absence. An alternate director shall not be entitled as such to receive any remuneration from the Company, save that he may be paid by the Company such part (if any) of the remuneration otherwise payable to his appointor as such appointor may by notice in writing to the Company from time to time direct. Regulation 66 of Table A shall not apply to the Company.

12.2 A director, or any such other person as is mentioned in regulation 65 of Table A, may act as an alternate director to represent more than one director, and an alternate director shall be entitled at any meeting of the directors or of any committee of the directors to one vote for every director whom he represents in addition to his own vote (if any) as a director, but he shall count as only one for the purpose of determining whether a quorum is present and the final sentence of regulation 88 shall not apply to the Company.

12.3 Save as otherwise provided in the regulations of the Company, an alternate director shall be deemed for the purposes specified in **Article 12.1** to be a director and shall alone be responsible for his own acts and defaults and he shall not be deemed to be the agent of the director appointing him. Regulation 69 of Table A shall not apply to the Company.

13. **APPOINTMENT AND RETIREMENT OF DIRECTORS**

13.1 The directors shall not be required to retire by rotation and regulations 73 to 80 (inclusive) of Table A shall not apply to the Company.

- 13.2 A member or members holding a majority of the voting rights in the Company (within the meaning of section 736A(2) of the Act) shall have power at any time, and from time to time, to appoint any person to be a director, either as an additional director (provided that the appointment does not cause the number of directors to exceed any number determined in accordance with **Article 11.2** as the maximum number of directors for the time being in force) or to fill a vacancy and to remove from office any director howsoever appointed. Any such appointment or removal shall be made by notice in writing to the Company signed by the member or members making the same or, in the case of a member being a corporate body, signed by one of its directors or duly authorised officers or by its duly authorised attorney and shall take effect upon lodgement of such notice at the office.
- 13.3 The Company may by ordinary resolution appoint any person who is willing to act to be a director, either to fill a vacancy or as an additional director.
- 13.4 The directors may appoint a person who is willing to act to be a director, either to fill a vacancy or as an additional director, provided that the appointment does not cause the number of directors to exceed any number determined in accordance with **Article 11.2** as the maximum number of directors for the time being in force.
- 13.5 If, immediately following and as a result of the death of a member, the company has no members and if at that time it has no directors, the personal representatives of the deceased member may appoint any person to be a director and the director who is appointed will have the same rights and be subject to the same duties and obligations as if appointed by ordinary resolution in accordance with **Article 13.3**. If two members die in circumstances rendering it uncertain which of them survived the other, such deaths shall, for the purposes of this Article, be deemed to have occurred in order of seniority and accordingly the younger shall be deemed to have survived the elder.

14. **DISQUALIFICATION AND REMOVAL OF DIRECTORS**

The office of a director shall be vacated if:

- 14.1 he ceases to be a director by virtue of any provision of the Act or these Articles or he becomes prohibited by law from being a director; or
- 14.2 he becomes bankrupt or makes any arrangement or composition with his creditors generally; or
- 14.3 he is, or may be, suffering from mental disorder and either:
- 14.3.1 he is admitted to hospital in pursuance of an application for admission for treatment under the Mental Health Act 1983 or, in Scotland, an application for admission under the Mental Health (Scotland) Act 1960; or
 - 14.3.2 an order is made by a court having jurisdiction (whether in the United Kingdom or elsewhere) in matters concerning mental disorder for his detention or for the appointment of a receiver, curator bonis or other person to exercise powers with respect to his property or affairs; or
- 14.4 he resigns his office by notice to the Company; or

- 14.5 he shall for more than six consecutive months have been absent without permission of the directors from meetings of the directors held during that period and the directors resolve that his office be vacated; or
- 14.6 he is removed from office as a director pursuant to **Article 13.2**, and regulation 81 of Table A shall not apply to the Company.

15. **GRATUITIES AND PENSIONS**

Regulation 87 of Table A shall not apply to the Company and the directors may exercise any powers of the Company conferred by its Memorandum of Association to give and provide pensions, annuities, gratuities or any other benefits whatsoever to or for past or present directors or employees (or their dependants) of the Company or any subsidiary or associated undertaking (as defined in section 27(3) of the Companies Act 1989) of the Company and the directors shall be entitled to retain any benefits received by them or any of them by reason of the exercise of any such powers.

16. **PROCEEDINGS OF THE DIRECTORS**

- 16.1 Whensoever the minimum number of the directors shall be one pursuant to the provisions of **Article 11.2**, a sole director shall have authority to exercise all the powers and discretions which are expressed by Table A and by these Articles to be vested in the directors generally and regulations 89 and 90 of Table A shall be modified accordingly.
- 16.2 Subject to the provisions of the Act, and provided that he has disclosed to the directors the nature and extent of any interest of his, a director notwithstanding his office:
- 16.2.1 may be a party to or otherwise interested in any transaction or arrangement with the Company or in which the Company is in any way interested;
 - 16.2.2 may be a director or other officer of or employed by or be a party to any transaction or arrangement with or otherwise interested in any body corporate promoted by the Company or in which the Company is in any way interested;
 - 16.2.3 may, or any firm or company of which he is a member or director may, act in a professional capacity for the Company or any body corporate in which the Company is in any way interested;
 - 16.2.4 shall not by reason of his office be accountable to the Company for any benefit which he derives from such office, service or employment or from any such transaction or arrangement or from any interest in any such body corporate and no such transaction or arrangement shall be liable to be avoided on the ground of any such interest or benefit; and
 - 16.2.5 shall be entitled to vote on any resolution and (whether or not he shall vote) be counted in the quorum on any matter referred to in any of **Articles 16.2.1 to 16.2.4** (inclusive) or on any resolution which in any

way concerns or relates to a matter in which he has, directly or indirectly, any kind of interest whatsoever and if he shall vote on any resolution as aforesaid his vote shall be counted.

16.3 For the purposes of **Article 16.2:**

16.3.1 a general notice to the directors that a director is to be regarded as having an interest of the nature and extent specified in the notice in any transaction or arrangement in which a specified person or class of persons is interested shall be deemed to be a disclosure that the director has an interest in any such transaction of the nature and extent so specified;

16.3.2 an interest of which a director has no knowledge and of which it is unreasonable to expect him to have knowledge shall not be treated as an interest of his; and

16.3.3 An interest of a person who is for any purpose of the Act (excluding any statutory modification not in force when the Company was incorporated) connected with a director shall be treated as an interest of the director and in relation to an alternate director an interest of his appointor shall be treated as an interest of the alternate director without prejudice to any interest which the alternate director has otherwise.

16.4 Any director (including an alternate director) may participate in a meeting of the directors or a committee of the directors of which he is a member by means of a conference telephone or similar communications equipment whereby all persons participating in the meeting can hear each other and participation in a meeting in this manner shall be deemed to constitute presence in person at such meeting and, subject to these Articles and the Act, he shall be entitled to vote and be counted in a quorum accordingly. Such a meeting shall be deemed to take place where the largest group of those participating is assembled or, if there is no such group, where the chairman of the meeting then is.

16.5 Regulation 88 of Table A shall be amended by substituting for the sentence:

“It shall not be necessary to give notice of a meeting to a director who is absent from the United Kingdom.”

the following sentence:

“Notice of every meeting of the directors shall be given to each director and his alternate, including directors and alternate directors who may for the time being be absent from the United Kingdom and have given the Company an address within the United Kingdom for service.”

16.6 Regulations 94 to 97 (inclusive) of Table A shall not apply to the Company.

17. **THE SEAL**

If the Company has a seal it shall be used only with the authority of the directors or of a committee of the directors. The directors may determine who shall sign any instrument to which the seal is affixed and unless otherwise so determined, every

instrument to which the seal is affixed shall be signed by one director and by the secretary or another director. The obligation under regulation 6 of Table A relating to the sealing of share certificates shall only apply if the Company has a seal. Regulation 101 of Table A shall not apply to the Company.

18. NOTICES

- 18.1 In regulation 112 of Table A, the words "first class air mail" if appropriate shall be inserted immediately before the words "post in a prepaid envelope".
- 18.2 Where a notice is sent by first class post, proof of the notice having been posted in a properly addressed, prepaid envelope shall be conclusive evidence that the notice was given and shall be deemed to have been given at the expiration of 24 hours (48 hours if sent by air mail) after the envelope containing the same is posted. Regulation 115 of Table A shall not apply to the Company.
- 18.3 If at any time by reason of the suspension or curtailment of postal services within the United Kingdom the Company is unable effectively to convene a general meeting by notices sent through the post, a general meeting may be convened by a notice advertised in at least one national daily newspaper and such notice shall be deemed to have been duly served on all members entitled thereto at noon on the day when the advertisement appears. In any such case the Company shall send confirmatory copies of the notice by post if at least seven days prior to the meeting the posting of notices to addresses throughout the United Kingdom again becomes practicable.

19. WINDING UP

In regulation 117 of Table A, the words "with the like sanction" shall be inserted immediately before the words "determine how the division".

20. INDEMNITY

- 20.1 Subject to the provisions of section 310 of the Act every director (including an alternate director) or other officer of the Company shall be indemnified out of the assets of the Company against all losses or liabilities which he may sustain or incur in or about the lawful execution of the duties of his office or otherwise in relation thereto, including any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in connection with any application under section 144 or section 727 of the Act in which relief is granted to him by the court, and no director (including an alternate director) or other officer shall be liable for any loss, damage or misfortune which may happen to or be incurred by the Company in the lawful execution of the duties of his office or in relation thereto. Regulation 118 of Table A shall not apply to the Company.
- 20.2 The directors shall have power to purchase and maintain at the expense of the Company for the benefit of any director (including an alternate director), officer or auditor of the Company insurance against any such liability as is referred to in section 310(1) of the Act and subject to the provisions of the Act against any other liability which may attach to him or loss or expenditure which he may incur in

relation to anything done or alleged to have been done or omitted to be done as a director (including an alternate director), officer or auditor.

- 20.3 The directors may authorise directors of companies within the same group of companies as the Company to purchase and maintain insurance at the expense of the Company for the benefit of any director (including an alternate director), other officer or auditor of such company in respect of such liability, loss or expenditure as is referred in **Article 20.2**.

The person whose name, address, and description subscribed, is desirous of being formed into a company in pursuance of this Memorandum of Association and agrees to take the number of shares in the capital of the Company set opposite its name.

Name	Address and description of Subscriber	Number of shares taken by the Subscriber
Applied Wave Research Inc <i>Applied Wave Research Inc</i>	1960 East Grand Avenue Suite 430 El Segundo California 90245 United States Company	10,000

Dated: *September 24, 2002*

WITNESS TO THE ABOVE SIGNATURE:

Witness signature: *Dane Collins*

Name: *Dane Collins*

Address: *1960 East Grand Avenue, Suite 430, El Segundo, CA 90245, USA*

Occupation: *Chief Operating Officer*