

No attempt has been made to rank the information contained in this report in order of importance, since BPA Worldwide believes this is a judgment which must be made by the user of the report.

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About  
Since 1958, Microwave Journal has been a leading source for information about RF and Microwave technology, design techniques, news, events and educational information.

Report Purpose  
The Brand Report provides a deeper understanding and identification of all audited touch points with customers that have interest in the brand. It is designed to present analysis of all communication channels, including a brand's unique users within each channel of, but not across, multiple media platforms. This non-integrated report contains data for each separate media channel as indicated in the Executive Summary. No attempt has been made to identify or eliminate duplication that may exist across media channels.

Field Served  
MICROWAVE JOURNAL serves the field of Communications/Cellular/Broadcast/Networks, Test & Measurement Equipment, Semiconductors & IC's, Components, Military/Radar/Weapons/EW, Software/EDA Tools, Materials/Substrates/Packaging, R & D Labs/Consultants/Educators, Industrial/Processing Equipment, Medical/Scientific Equipment, Consumer Electronics, Automotive/Telematics, Laser/Electro-Optical Systems/Equipment, Aerospace, Avionics, Government and All Others Allied to the Field.

Definition of Recipient Qualification  
Qualified recipients are personnel of design and development, engineering services/support, research and development and manufacturing and production. Also qualified are executive or operating management, purchasing and procurement, applications engineering, sales and marketing personnel, academia and other personnel.

**CHANNELS**

**Microwave Journal Magazine**

6 issues in period  
50,000 average circulation

**Microwave Journal Website**

105,451 average users

**EXECUTIVE SUMMARY**

Below are the Average contacts per occurrence, including frequency per period reported.

Microwave Journal (6 issues in period)	Non-Paid 50,000	Paid 100,000	Average 50,000
a. Print	26,521	-	26,521
b. Digital	23,479	-	23,479
1. Requested	-	-	-
2. Non Requested	-	-	-
Microwave Journal Website (Monthly Users with 190,718 Average Pageviews - Note 1)	105,451	-	105,451

Note 1: Users: See Website Glossary in Channel Profile.

**MAGAZINE CHANNEL Official Publication Of: None Established: 1958/Issues Per Year:12**

AVERAGE NON-QUALIFIED CIRCULATION		NON-QUALIFIED	
Not Included Elsewhere	-	-	Copies 81
Other Paid Circulation	-	-	731
Advertiser and Agency	-	-	-
Eligible for Trade Show/Off and Conventions	-	-	1,091
All Other	-	-	1,963
TOTAL	-	-	-

1. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD	
QUALIFIED CIRCULATION	Copies Total Qualified Percent
Individual	50,000 100.0 50,000 100.0
Sponsored Individually Addressed	- - - -
Membership Benefit	- - - -
Multi-Copy Same Addressee	- - - -
Single Copy Sales	- - - -
TOTAL QUALIFIED CIRCULATION	50,000 100.0 50,000 100.0

1a. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD - PRINT	
QUALIFIED CIRCULATION	Copies Total Qualified Percent
Individual	26,521 100.0 26,521 100.0
Sponsored Individually Addressed	- - - -
Membership Benefit	- - - -
Multi-Copy Same Addressee	- - - -
Single Copy Sales	- - - -
TOTAL QUALIFIED CIRCULATION	26,521 100.0 26,521 100.0

1b. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD - DIGITAL	
QUALIFIED CIRCULATION	Copies Total Qualified Percent
Individual	23,479 100.0 23,479 100.0
Sponsored Individually Addressed	- - - -
Membership Benefit	- - - -
Multi-Copy Same Addressee	- - - -
Single Copy Sales	- - - -
TOTAL QUALIFIED CIRCULATION	23,479 100.0 23,479 100.0

2. QUALIFIED CIRCULATION BY ISSUES FOR PERIOD	
2020 Issue	Print Digital Total Qualified
July	26,302 23,298 50,000
August	26,588 23,412 50,000
September	26,535 23,465 50,000
October	26,420 23,580 50,000
November	26,447 23,553 50,000
December	26,432 23,588 50,000

**3a. BUSINESS OCCUPATION BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2020**  
(This item is equal to the average of the other 5 issues reported in Paragraph 2.)

BUSINESS AND INDUSTRY	TOTAL QUALIFIED OF TOTAL	PERCENT	Print	Digital	PERCENT	DESIGN & DEVELOPMENT SERVICES/SUPPORT	EXECUTIVE OR OPERATING MANAGEMENT	RESEARCH & MANUFACTURING DEVELOPMENT & PRODUCTION	PURCHASING & PROCUREMENT	APPLICATIONS ENGINEERING/SALES & MARKETING	ACADEMIA/OTHER	NONE OF THE ABOVE
COMMUNICATIONS/CELLULAR/BROADCAST/NETWORKS	11,803	23.62	6,377	4,238	4,228	2,226	2,047	1,433	237	130	796	473
TEST & MEASUREMENT EQUIPMENT	4,206	8.41	2,144	2,102	1,259	836	742	511	159	43	545	126
SEMICONDUCTORS & ICs	2,841	5.68	1,070	1,071	1,071	264	338	504	87	27	365	134
COMPONENTS	2,239	4.48	1,211	1,018	953	298	623	192	117	44	338	58
MILITARY/RADAR/WEAPONS/EW	4,037	8.07	1,854	2,153	1,929	470	427	705	131	39	240	110
SOFTWARE/EDA TOOLS	979	1.96	509	470	232	164	268	111	17	13	132	37
MATERIALS/SUBSTRATES/PACKAGING	1,273	2.55	799	934	744	183	406	145	147	36	136	21
R & D LABS/CONSULTANTS/EDUCATORS	4,400	8.80	2,102	2,298	964	492	588	1,309	31	22	48	936
INDUSTRIAL/PROCESSING/EQUIPMENT	4,699	9.39	3,180	1,489	1,236	908	1,555	225	369	81	299	20
MEDICAL/ELECTRICAL/EQUIPMENT	1,389	2.78	784	596	490	204	331	230	87	26	44	51
CONSUMER ELECTRONICS	2,177	4.35	1,218	899	676	314	630	214	87	42	137	31
AUTOMOTIVE/ELECTRONICS	1,750	3.50	1,043	707	554	308	435	225	99	22	80	17
LASER/ELECTRO-OPTICAL SYSTEMS, EQUIPMENT	416	0.83	235	181	103	44	101	21	23	11	22	36
OTHER	486	0.97	215	271	110	57	74	34	32	6	31	60
AGRICULTURE	2,843	5.69	1,509	1,338	1,090	482	542	351	163	42	128	49
AVIATION	536	1.07	294	242	212	112	116	31	17	6	21	17
GOVERNMENT	2,217	4.43	1,346	871	475	385	538	309	36	38	54	126
None of the Above	198	0.4	57	141	16	10	14	24	3	1	8	49
TOTAL QUALIFIED CIRCULATION	50,000	100.0	26,447	23,553	15,262	7,961	11,346	6,546	1,832	619	3,446	2,365
PERCENT			52.9	47.1	30.6	15.9	22.7	13.1	3.7	1.2	6.9	4.6

**3b. QUALIFICATION SOURCE BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2020**

QUALIFICATION SOURCE	1 Year	2 Years	3 Years	Print	Digital	Total Qualified	PERCENT
I. Direct request	-	-	-	-	-	-	-
II. Request from recipient's company	-	-	-	-	-	-	-
III. Membership benefit	-	-	-	-	-	-	-
IV. Communication (other than request)	-	-	-	-	-	-	-
V. Sources other than above, including: Association notices and directories; Business directories; Manufacturer's, distributor's and wholesaler's lists; and Other sources	-	-	-	-	-	-	-
VI. Single Copy Sales	-	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	80,000	-	-	26,447	23,553	50,000	100.0
PERCENT	100.0	-	-	52.9	47.1	100.0	100.0

\*See Additional Data

**WEBSITE CHANNEL**

2020	PAGEVIEWS	SESSIONS	USERS	AVERAGE SESSION DURATION
July	191,846	140,243	105,688	0:57
August	179,036	139,898	100,817	0:58
September	206,872	139,898	111,927	0:53
October	222,137	149,523	121,626	0:51
November	145,244	129,068	103,545	0:54
December	160,377	111,345	89,046	1:00
AVERAGE	190,718	133,299	105,451	0:58

Pageviews: A pageview is recorded each time a page is displayed on a browser window. This will occur whether the page is served directly from the web server, from a proxy, or from the browser's cache.  
Sessions: A single continuous set of activity attributable to a cookieless browser returning in one or more pulled text and/or graphics downloads from a site. A period of 30 minutes of inactivity will terminate the session.  
Users: An identified and unduplicated cookieless browser that accesses internet content or advertising during a measurement period.  
Average Session Duration: The time visitors remain on a site per session.

**WEBSITE GLOSSARY**

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**GEOGRAPHIC DISTRIBUTION**

GEOGRAPHICAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2020*		Print	Digital	Total Qualified	Percent
State					
Maine		67	31	98	-
New Hampshire		166	246	414	-
Vermont		51	116	167	-
Massachusetts		423	619	1,042	-
Rhode Island		82	45	127	-
Connecticut		293	130	423	-
NEW ENGLAND		1,564	1,288	2,852	5.7
New York		1,185	649	1,834	-
New Jersey		486	406	892	-
Pennsylvania		467	280	747	-
MIDDLE ATLANTIC		2,488	1,259	3,747	7.5
Ohio		846	396	1,244	-
Illinois		201	281	482	-
Indiana		432	444	876	-
Michigan		611	325	936	-
Wisconsin		424	140	564	-
EAST NO. CENTRAL		3,107	1,258	4,365	8.7
Minnesota		393	205	598	-
Iowa		189	101	290	-
Missouri		306	143	449	-
North Dakota		57	24	81	-
South Dakota		48	34	82	-
Nebraska		132	49	181	-
Kansas		198	106	304	-
WEST NO. CENTRAL		1,524	689	2,213	4.4
Delaware		57	39	97	-
Maryland		58	35	93	-
Washington, DC		78	65	143	-
Virginia		573	372	945	-
West Virginia		74	58	132	-
North Carolina		549	298	847	-
South Carolina		212	107	319	-
Georgia		486	252	738	-
Florida		1,026	604	1,630	-
SOUTH ATLANTIC		1,635	2,150	3,785	7.6
Kentucky		155	62	217	-
Tennessee		280	123	403	-
Alabama		223	154	377	-
Mississippi		108	46	154	-
Louisiana		79	35	114	-
EAST SO. CENTRAL		776	385	1,161	2.3
Arkansas		84	42	126	-
Louisiana		118	58	176	-
Oklahoma		151	91	244	-
Texas		1,153	911	2,064	-
WEST SO. CENTRAL		1,266	1,104	2,370	4.7
Montana		72	29	101	-
Idaho		121	54	175	-
Wyoming		43	19	62	-
Colorado		403	227	630	-
New Mexico		149	114	263	-
Arizona		453	249	702	-
Utah		213	117	330	-
Nevada		111	68	179	-
MIDWESTERN		1,576	1,153	2,729	5.5
Alaska		44	35	79	-
Washington		416	302	718	-
Oregon		188	108	296	-
California		3,158	2,552	5,710	-
Hawaii		47	26	73	-
PACIFIC		3,113	2,111	5,224	10.4
UNITED STATES		20,118	12,641	32,759	65.5
U.S. Territories		33	27	60	-
Canada		221	478	699	1.4
Mexico		22	95	117	-
Other International		6,849	10,315	16,864	33.5
UNPAID		-	-	-	-
TOTAL		26,447	23,553	50,000	100.0

\*See Additional Data

**GEOGRAPHICAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2020\***

Region/Country	Print	Digital	Total Qualified	Percent
Asia				
Afghanistan		2	3	0.01
Albania		5	5	0.01
Armenia		1	1	0.00
Australia		4	4	0.01
Bangladesh		71	16	87
Bahrain		1	1	0.00
Bhutan		2	2	0.00
Canada		2	2	0.00
China		69	447	566
Hong Kong - SAR				