

# BROADCAST

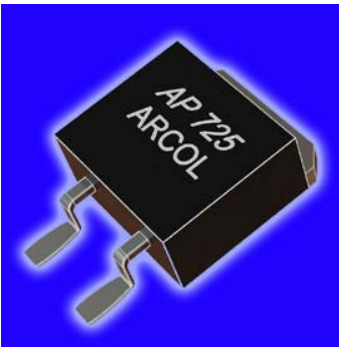
The Monthly On-Line Voice for Resistor News

Issue #132 September 2015

**NEWS****Ohmite Launches 4 New Arcol Products to our Heatsinkable Thick Film Product Range**

The advantages to our acquisition of ARCOL UK in March are many, and with the successful introduction of their core HS Series Aluminum Housed Wirewound Resistor family behind us, it is time to move on to other attractive products which they offer. The next phase of development is the adaptation of ARCOL's Heatsinkable Thick Film Resistors. This is a product type which Ohmite has had great success with over the last 10 years. From 20W to 2000W our sales have exceeded \$2.5 million annually, but there is more we can do. ARCOL's products give us cost advantages we did not have before, plus a 50W TO-220 which will enable us to compete for applications where we could not before. In a short time you will be receiving a new CR137EE Price File which will contain 283 new ARCOL part numbers, including these.

The AP101 Series is similar to our TEH100 but with Distributor Costs 30% lower. →

**AP725 D2PAK RESISTOR**

20 watts  
 RO2  
 130K  
 ±1% or ±5%  
 ±100ppm/°C  
 250Vdc or √ (P,R)  
 2000 Vac

← AP725 is a lower power (20W) version of our own TDH35 (35W) D-Pack style resistor. Suitable for most applications, the AP725 is priced 45% lower than the TDH35.

**AP101 TO247 RESISTOR**

100 watts  
 1R  
 10K  
 ±1% or ±5% or ±10%  
 ±50ppm/°C ±100ppm/°C ±200ppm/°C  
 700Vdc  
 1.8k Vac

*Continued on P2*

**IF MUSIC BE THE FOOD OF LOVE..... BUT WAS IT? Find out on P4**

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**NEWS**

**AP836 TO220  
35 WATTS POWER THICK FILM**

35 Watts with Heat Sink  
RO5  
10K  
 $\pm 0.5\%$ ,  $\pm 1\%$ ,  $\pm 5\%$ ,  $\pm 10\%$   
 $\pm 50\text{ppm}/^\circ\text{C}$   $\pm 100\text{ppm}/^\circ\text{C}$   
 $\pm 200\text{ppm}/^\circ\text{C}$   
350Vdc  
1.8k Vac

← AP836 is like our own TCH35 but at a 45% lower Distributor Cost.

Finally, the AP851 offers 50W in a TO-220 package, which is a new, higher power rating than we have ever offered before in this style. It will compete favorably with 50W TO-220's offered by our competitors →



**AP851 TO220**  
50 Watts (Tab Temp Max 25°C)  
1R  
10K  
 $\pm 0.5\%$ ,  $\pm 1\%$ ,  $\pm 5\%$ ,  $\pm 10\%$   
 $\pm 50$  to  $\pm 300\text{ppm}/^\circ\text{C}$  (re ohmic value)  
420Vdc or  $\sqrt{P,R}$   
18000 Vdc (60 secs)

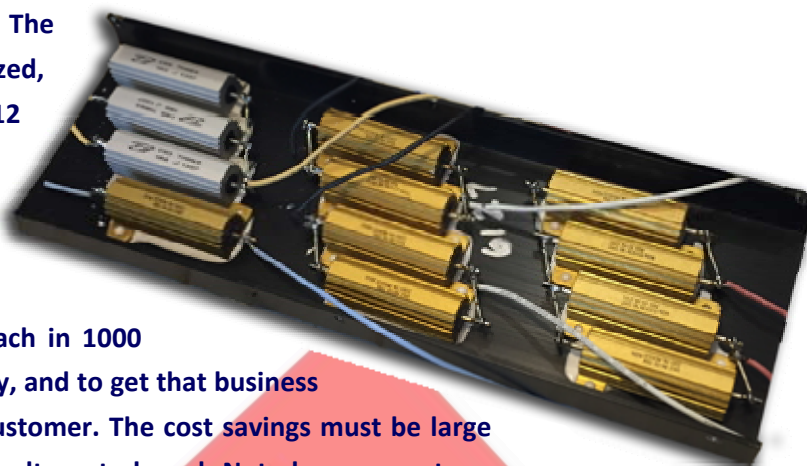
Take full advantage of this opportunity as you receive the detailed list of standard part numbers and pricing.

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**APPLICATIONS CHRONICLES****ARCOL aluminum housed resistors reveal assembly opportunities**

One of the most important advantages of our Arcol UK acquisition is the exposure to new, attractive opportunities for assembly solutions. This example is typical of what we are talking about. Here, the customer is mounting 12 resistors (50W size) on a common heatsink. As you can see, 8 resistors are wired in pairs, 3 are connected together and the 12<sup>th</sup> resistor is wired independently. The heatsink itself is a custom extrusion, black anodized, with pre-tapped holes (24) to accommodate the 12 resistors. Taking just the heatsink/resistor subassembly let's examine the difference between approaching this as an assembly or a set of components. 50W aluminum housed resistors from the supplier involved here are sold at around \$2.00 each in 1000 piece lots. So, \$24.00 worth of resistors per assembly, and to get that business you will likely need to offer a cost savings to the customer. The cost savings must be large enough to incentivize them to qualify you and your alternate brand. Not always easy to overcome those obstacles. So, at 1000 assemblies per year, you might get \$20,000 in annual sales if you succeed. Sales which will be a challenge to keep, as competitors may come in at a later date and shave the price of the resistors even more. Such is the nature of the commodity components business. Your alternate approach is to look at this entire assembly as the opportunity. Heatsinks of this type will sell in the \$6-\$8 range based on its size, aspect ratio (fins per linear inch), surface finish, and number of machined holes. The wiring, and the connectors which terminate each wire connection, have a value too. Possibly \$5 worth of wiring and connectors. Labor to do this assembly in the USA or Canada has a cost as well. Not only that, but the purchase of each of the subcomponents, receipt of those components, and paying the invoices for each of those deliveries has costs for your customer to absorb as they build these themselves. The full resistor/heatsink assembly, therefore, has a value approaching \$60 each. This opportunity then becomes TRIPLE the value that it was when you sought to just sell the resistors. You can also secure the business from future competition by changing what is being bought from commodity components to a higher level assembly. Ohmite, unlike our competitors, brings expertise in the resistors, the heatsinks, and the assembly skills necessary to win this business. Our labor costs in Matamoros will provide cost advantages to the customer, while our Texas shipping location provides a much shorter supply line than trying to do this overseas. Whenever you are involved with heatsinkable resistors of any type, it is always to your advantage to explore the assembly side of the customer relationship. We will give you more examples in the future, but why not make the next example one which you uncovered?

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From the desk of Greg Pace  
President of Ohmite

### End of Q3, Sprint to the Finish Line !

We are enlightened, just a bit by the September key indicators as 2015 has turned into, shall we say a challenging year! When we close the books on Q3 2015 and begin Q4, what would you like to accomplish yet in the year? We are in the midst of numerous process improvement initiatives focused on better and more accurate costing for long term price stability, throughput focused on our tubular wirewound (“lug”) line and completing a few new platforms and extensions of products. Kurt will be finishing his first 100 days at Ohmite and we have room for fast turnaround opportunities. We remain concentrated on making our forecast and hope you are too. Value added opportunities are on the uptick as the extended sales team is “asking the question” as part of the selling process. Our reps are in the field and we are ready to support you all with an experienced engineering team. We are committed to 2016, and think we can finish the year with momentum into 2016.

*Happy Selling!  
Greg*

### ROLLIN’ BACK THE YEARS

What do the House of Blues in San Diego and the Loyola Academy (Chicago) prom dance (1988!) have in common? They both had this handsome couple embrace! Yep, that’s our Alma Arroyo reunited for the first time with prom date hunk, Raymond DiGiorgio. Raymond and Alma last saw one another on Prom night in 1988, Raymond is now the father of four living the entertaining dream in San Diego and earning West Coast music award notoriety, while Alma has excelled in our industry. Team Ohmite was lucky to meet up with the reunion of these two old friends and snap the “today picture”. What an electric evening as we were provided a front row for 90 minutes of a real “guitar hero” playing the blues! Raymond’s breed of instrumental guitar music rock features all original material and “left-handed” guitar styling. Rooted in a hybrid of rock and groove, the sound that is RDG spans the generational genre, offering a diverse range of music for all walks of life. By far one of today’s hottest rising West Coast acts, RDG is an explosive live performance group.



Check them out at <https://www.reverbnation.com/rdgrocks> Oh, and you can find Alma at [aarroyo@ohmite.com](mailto:aarroyo@ohmite.com) for all of your resistor and thermal needs, she is our

*Ed: This is a great idea. Please send us your then and now pix and we can make this a regular feature.*

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**TECH TALK****It's up there - but you'll never know.**

Phantom Eye (or something like it) will someday be the bloated centerpiece of defending the United States (and its allies) from a nuclear attack. Carrying what's called a directed energy weapon, it will lurk at high altitude, ready to disable or fry an incoming missile. It is the dream of an airtight Star Wars strategic defense from which technological Cold Warriors never awoke. Since Ronald Reagan unveiled his "Star Wars" strategic defense initiative in 1983, the United States has spent nearly \$10 billion annually on missile defense technology, most of it relegated to obscure and highly classified science projects. "A UAV-borne laser would be capable of acquiring, tracking and eventually destroying an enemy missile at a much lower cost than the existing [ballistic missile defense system]," Vice Admiral J.D. Syring, the director of the Missile Defense Agency testified before Congress in March. Boeing's long-endurance Phantom Eye drone, which has a two 2.3-liter triple-turbocharged Ford pickup truck engines and burns liquid hydrogen contained in two giant spherical tanks, is just the battlestar to do the job. Phantom Eye's first flight took place in June 2012. The five-ton drone has shown the ability to stay aloft for an amazing four days at 65,000 feet, watching over American skies. In September 2013, Boeing completed the fifth flight of Phantom Eye, the first to include an unspecified "payload," that is a 400 pound classified device on board. It was a high powered laser, one of two being developed by MIT's Lincoln Laboratory and the Lawrence Livermore National Laboratory. We imagine that the old Star Wars dream of airtight strategic defense died with Ronald Reagan, and we imagine that the American missile defense program is limited to protecting against a small-scale missile attack, one that might come from Iran or North Korea. But killer lasers and high powered microwave weapons are already deployed in small numbers, and in tandem with Phantom Eye, might soon be able to patrol the skies, launched in a crisis and able to remain on station for up to four days, a first line (or last line) or defense.

**PHANTOM EYE**

Wingspan	150ft 46m	Take-off Gross Weight	9,800 lbs/4,445 kgs
<b>Cruise Speed</b>	<b>150 knots</b>	<b>Maximum Speed</b>	<b>200 knots</b>
Altitude	65,000 ft	Engines	2 - 2.3 liter 150 bhp
<b>Endurance</b>	<b>4 days at 65,000 feet/19,800 metres</b>		

<http://www.boeing.com/defense/phantom-eye/#/hotspots>



## Ohm-Made Treats

*In our continuing monthly feature, our Customer Service Team of Laurie Hunter, Norma Redmond, and Judy Heyse will be delivering delicious recipes of their own, and those submitted by you, the readers, for everyone to enjoy. This column is theirs to use as they please, but you can count on something new to try in your kitchen each month. Our friends over at Arcol in theUK have given us another delicious sounding (and looking) recipe to share with you all. Best of all it includes bacon, and who can say “no” to that?*

### **SALMON & BACON WRAP - Serves 2**

#### **INGREDIENTS**

2 pieces of salmon fillet, each approximately 200g  
 125g of butter  
 chopped chives  
 lemon thyme  
 2 rashers of smoked bacon

#### **METHOD**

Slightly season 2 pieces of salmon fillet with salt. Set the oven at 200C/gas mark 6.

In a mixing bowl or using a food processor, combine 2 tps each of chopped chives and lemon thyme with 125g of butter. Season with black pepper.

Take 2 rashers of smoked bacon and place them close together, flat on the work surface. Place one of the pieces of salmon fillet on top of the bacon. Spread 1 heaped tbs of the herb butter over the salmon then wrap the bacon rashers loosely around the fish, tucking them tightly underneath as you place the fish in a foil-lined baking dish. Repeat with the second piece of salmon, the herb butter and two more rashers of bacon. Spread any remaining butter on top of the bacon before you put it in the oven.

Place the fish in the preheated oven and roast for 20 minutes until the fish is firm but only just cooked.

Many of the major supermarkets stock lemon thyme. If it evades you, then use classic thyme leaves with 1 tsp of lemon juice. Not the same, but on the right track.

#### **The twist**

Swap the thyme and chives for tarragon and parsley. This is also a good time to use chervil. Salmon and chervil are a happy marriage. You can also use pancetta instead of the smoked bacon.



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### Kirk's Corner

**Kirk Schwiebert**  
**Director of Strategic Planning and**  
**New Product Development**

### **YOU WERE WARNED!**

*This month we have an overseas report from Amrut Annigeri, who ably represented Ohmite at the Electronica India Exhibition in Dehli. It looks like it was tough duty and he furnished us this report.*

The Electronica exhibition in India is held in Bangalore and Delhi on alternate years and with a population of 1.2 billion people it's perhaps the best option of dividing the regions to north and south. This year it was in Delhi, the capital of India and close to Agra which boasts of one of the seven wonders of the world, the Taj Mahal, most of the visitors to Delhi have the chance to visit this beautiful monument. I had the opportunity to meet up with Tom of Memory Protection Devices

who has now visited all the seven wonders of the world which he completed during Electronica by visiting the Taj Mahal. The 2015 exhibition boasted close to 17,000 visitors and approximately 350 exhibitors in various fields of electronics. Ohmite would like to thank its distributors Addcom/MPD and Lechamp for helping us at the event, and in particular, we would like to thank the beautiful hostesses at the Addcom/MPD booth. We hope they had a good show and that everyone's efforts will translate to POS very soon ! See you all in Bangalore 2016!





**Peter's**  **Page**

Peter Craik

International Sales Director EMEA  
(Europe, Middle East and Africa)



So, eight weeks in and Aguero gets a hat-trick, Kane scores in the PL for the first time (even though it was offside) and all the unknowns are stealing the headlines. Strange start - especially for those of us in the North-East! It's too early to predict that TTI's Felix Corbett won't win the league, but look where he is. Too much work and not enough concentration Felix! Meanwhile the Schweibert's (in one form or another) are intent on total domination and the magazine meetings at Electronic Specifier must be interesting as the two West Ham supporters at the top of the Championship spend more time discussing football than they do our latest products! Significantly, both of those would be in the top four in the Ohmite Premier Division which I'm guessing they'll be joining next season. Mind you, a weekend like the Evans' had can make a huge difference. Matthew scoring 86 points with three of his players getting a massive 67 points between them while Martin's team chipped in a handy 69 points with his three strikers contributing 34 of them. So, it can be done, but it's not easy to pick out those captains who are really going to perform. This weekend's going to be interesting with Arsenal taking on United and the Merseyside derby with Everton right on form after Monday night's result. Good luck. **PETER CRAIK**



## PREMIER DIVISION



## CHAMPIONSHIP

TEAM	MANAGER	POINTS
1 KUFTA KABOBS	Seta Hovsepian (O)	365
2 ALEX MORGAN FC	Kirk Schwiebert (O)	348
3 BUD'S PLAYERS	Matthew Evans (R)	339
4 EVANS OLDIES	Martin Evans (R)	312
5 THERE'S NO 'F' IN WAY	Dominic Melville (TT)	311
6 50 SHADES OF O'SHEA	Daniel Evans (R)	308
7 BREEDS BULLDOGS	Geoff Breed (TT)	298
8 MAXXIMUM	Brandon Metzger (O)	296
9 PARDEW'S NUTS	Mark Gallier (T)	296
10 TIGA TIGA	Keith Gallier (T)	294
11 DIAMOND LIGHTS	Felix Corbett (TT)	281
12 TUMBLE UTD	Peter Larcombe (T)	276
13 POMPEY CHIMES	Graham Maggs (MO)	274
14 MRS MOUSEY XI	Grace Thompson (S)	248

TEAM	MANAGER	POINTS
1 HAMMER TIME	Tim Anstee (ES)	348
2 WHOATEALLTHEPAYETS	Steve Regnier (ES)	346
3 CECH IT OUT	Andrew Schwiebert (RM)	319
4 REAL SALT CRAIK	Jimmy Craik (ST)	306
5 OLLIE SUB	Darrel Oliver (A)	291
6 GOONERS	Amrut Annigeri (S)	271
7 GRACE-FUL GEORDIES	Peter Craik (ST)	259
8 AZUL	Sergio Baez (O)	254
9 UNDERTAKERS UNITED	James Craik (ST)	250
10 BANTER BRIGADE	Sam Reed	250
11 MRS T'S HOOFERS	Jill Thompson (S)	249
12 STAMFORD BRIDGE BLUES	Julie Beadle (T)	248
13 90 MINUTE NOMADS	Peter McCready (A)	248
14 Wii NOT FIT	Adrian Reed (W)	234
15 MOYLE'S MISFITS	Clive Moyle	195

### GLOSSARY:

A =		ES =		F =		MO =		O =		R =	
S =		RM =		ST =		T =		TT =		W =	

# OHMITE