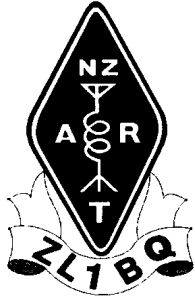


The Official Newsletter of the
Auckland VHF Group Inc.
Spectrum





Auckland VHF Group Inc.

Branch 66 NZART

PO Box 10138, Dominion Rd, Auckland 1446
Clubrooms: Hazel Ave, Mt Roskill

| Office | Name | Call sign | Home | Work / Mobile | E-mail |
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| Vice President | Jim Meachen | ZL2BHF | 480 1043 | 021 1039 333 | jim.m@clear.net.nz |
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| | Laurie Mathews | ZL1ICU | 634 5130 | 0274 817 463 | perma@xtra.co.nz |
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| Deputy Section | Franc Dunatov | ZL1SLO | 829 2003 | 021 396 381 | franc@ihug.co.nz |
| ZL1BQ Trustee | John Dunn | ZL1JD | 473 9514 | 021 731 907 | john.dunn@clear.net.nz |
| Repeater Trustee | John Dunn | ZL1JD | 473 9514 | 021 731 907 | john.dunn@clear.net.nz |
| Klondyke Managers | ZL1TGC, ZL1BK | | | | |
| 690 Manager | Dennis Seymour | ZL1UET | 532 8666 | | |
| 850/670 Manager | Vaughan Henderson | ZL1TGC | 418 1071 | 021 844 804 | vaughanh@vodafone.co.nz |
| ATV/Beacons | Grant Taylor | ZL1WTT | | 021 234 0270 | z1wtt1@yahoo.com.au |
| Spectrum Editor | Stephen Hayman | ZL1TPH | 09 4265056 | 0274 732663 | z1tph@xtra.co.nz |
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| Hon Auditor | Peter Loveridge | ZL1UKG | 377 3398 | 481 0544 | peterlov@ihug.co.nz |
| Webmaster | Hannes Hanekom | ZL1LW | 4417576 | 02102396653 | z1bq.webmaster@gmail.com |
| Club Web Page | http://www.gsl.net/zl1bq | | | | |
| ATV Interest Group | http://www.gsl.net/zl1qf/atvug/ATVusers.html | | | | |
| ZL1VHD Dstar gateway administrator; | Laurie Mathews | ZL1ICU | 6345130 | 0274817463 | perma@xtra.co.nz |
| ZL1VHD Dstar gateway registration URL : | http://zl1vhd.ham-radio-op.net | | | | |

Club News and Net:

The combined Auckland VHF Group and Auckland Regional Branch News and Net are held on 146.625 MHz and 439.875 MHz at 8.15 pm each Sunday or after the ZL6A National Broadcast on the last Sunday of the month.

Club meetings are held at the Clubrooms at Hazel Avenue, on the second Monday of each month at 7.30 pm. For other details, listen to the News and Net each Sunday evening.

Membership of the Auckland VHF Group is via subscription; \$25. It is expected that members of the Auckland VHF Group Inc. are also members of NZART, as we are branch number 66 of NZART.

SPECTRUM is the official journal of the Auckland VHF Group Inc.

Opinions expressed are those of the authors and do not necessarily reflect club points of view. The closing date for *SPECTRUM* articles is the Monday 7 days before the following General Meeting. Articles may be submitted to the Editor.

From the Chair – June 2011.

Last Months Meeting.

The May meeting was mainly devoted to Conference preparation. Laurie ZL1ICU was elected as our representative at the Conference being held in Upper Hutt over Queens Birthday weekend. There was a good turnout of people for the voting on Remits at the branch meeting, which was good to see, giving us a good representational view of the matters raised.

There were 13 remits presented to the meeting, and the results from conference were as follows, with the Branch 66 voting result given in parenthesis:

Remit 1, Carried (Carried)

Remit 2, Lost (Lost by Majority)

Remit 3, Lost (Carried)

Remit 4, Lost (Carried by Majority)

Remit 5, Lost (Lost by Majority)

Remit 6, Lost (Lost by Majority)

Remit 7. This was modified at Conference to include 160m – Carried, (Lost)

Remit 8, Lost (Lost)

Remit 9, Lost (Lost)

Remit 10, Lost (Lost)

Remit 11, Lost (Lost)

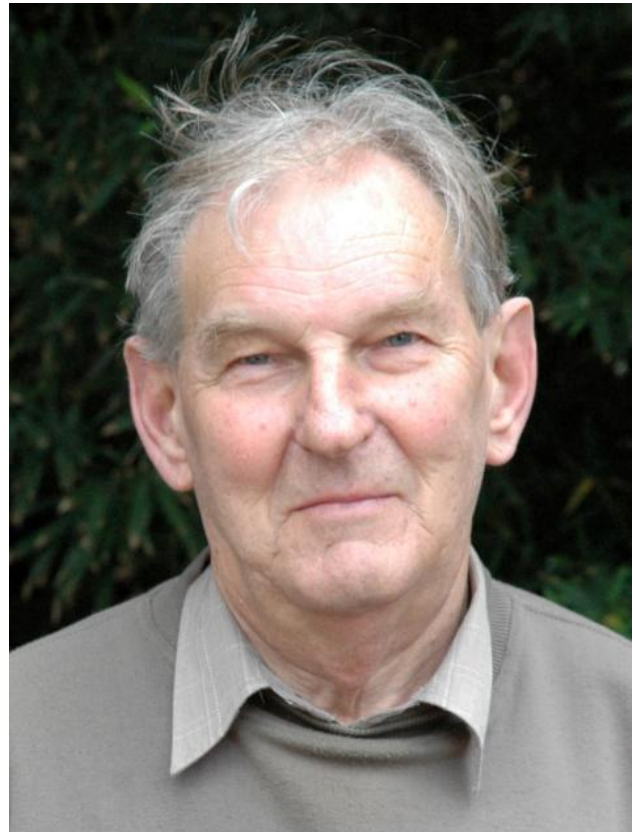
Remit 12, Withdrawn (Lost)

Remit 13, Withdrawn (Lost)

The full report will appear in Break-in within the next few months.

After the business session was completed, there was just enough time for Laurie ZL1ICU to give us a photographic journey through the ICOM factory and show us the automatic robot assistants that help the assembly lines to operate, along with the testing areas and automatic PCB manufacturing machines. An interesting insight into an iconic supplier of amateur radio equipment that has been around for many years.

Jim ZL2BHF, our ex Vice President was presented with a Plaque in appreciation of his services to the VHF Group over many years. We wish Jim all the best for his new venture southward.



New Vice President Elected

It is with great pleasure that we welcome Peter Lverage ZL1UKG back into the committee as Vice President. Peter has served on the committee in previous times as treasurer. So he is not altogether unfamiliar

with the running of the VHF Group. Welcome aboard again Peter and we look forward to the sensible and thoughtful contribution that Peter always makes towards the Group.

Work to be Done

With Conference now over for another year, more concentration can be made on jobs that need to be tackled. Klondyke needs some attention with at least three new feed-lines to be pulled up the tower to replace ones that have failed, and inhibiting us from installing the D-star system.

During the preceding months we have been able to source new coax, and a sponsor to help pay for them. Obviously the weather is going to be a major concern over the winter months, but it is hoped to make a start and certainly do the preparation work so that any fine periods that come along can be taken advantage off.

An internet source has been found that suits Klondyke and a sponsor has also been found to help pay for its on-going costs, so things are falling into place, all-be-it slowly.

Working Bee – 18th June

There is a need to sort out stuff in the container that we have acquired in recent months and make ready for sales coming up. A working Bee on the Saturday Morning of the 18th June should do it. Assistance from members would be appreciated.

More working bees are coming up so keep an eye on the web page these notes and the News and Net for details.

Technology Conference coming to Auckland,

The Technology Conference is hosted every two years so the next one is not due until Easter 2013. The Auckland VHF Group put in an application to run the next one, and this was

accepted by all those attending the Wellington event, so look out for Easter 2013 when Technology Conference will be on our back door. Watch this space for developments.

THIS MONTHS MEETING:

At this months meeting we go back to Microprocessors and learn a bit more about them. Continuing on from last year's introduction we now look at the programming language and where it fits into the little multi-legged animal, and how we get the thing to talk! Hannes ZL1LW is going to give a presentation utilising the AVR Microcontrollers as the example, but discussing and simplifying the intricacies of "C" Language. This should prove to be of interest to many people.

We look forward to seeing you all at the meeting.

Best 73's, de **ZL1JD**



AUCKLAND VHF GROUP (INC) BRANCH 66

MEETING NOTICE

June 13th 7.30PM HAZEL AVENUE CLUB ROOMS

(Located on left at the end of Hazel Avenue)

The Evenings Subject:

AVR MICROCONTROLLERS:

PROGRAMMING AND INTRODUCTION TO THE C CODE LANGUAGE.

By Hannes ZL1LW

Previously, Hannes discussed the basics of Microcontrollers and the various parts that required instruction and how they managed it. Now Hannes introduces the actual language used to talk to these devices and how programming is accomplished. Something not to be missed.

EVERYBODY WELCOME

The Auckland VHF Group has invited the NZ Electronics Institute to this meeting.

Dates to Remember over next few months.

Every Thursday 7.30 pm AREC Net 670

June 4th – 6th (Queens Birthday) NZART Conference Upper Hutt, Wellington

June 5th (Sun) 8.00pm Conference Official Broadcast followed by News and Net 6625 and 9875.

June 12th (Sun) 8.15pm News and Net 6625 and 9875

June 13th (Mon) 7.30 pm Hazel Ave Clubrooms, Using Microprocessors, Hannes ZL1LW.

June 18th (Sat) Working Bee at Clubrooms, 9.00am until Midday

June 19th (Sun) 8.15pm News and Net 6625 and 9875

June 26th (Sun) 8.00pm Official Broadcast followed by News and Net 6625 and 9875.

June 27th (Mon) Committee Meet, 7.30 pm Hazel Ave

July 2nd (Sat) Whangarie Branch Junk Sale and BBQ

July 3rd (Sun) 8.15pm News and Net 6625 and 9875

July 10th (Sun) 8.15pm News and Net 6625 and 9875

July 11th (Mon) 7.30 pm Hazel Ave Clubrooms, Tony Krzyewski ex Kaon Technologies.

July 12th (Tues) 7.30pm Franklyn Branch Sale. Pukekahi.

July 17th (Sun) 8.15pm News and Net 6625 and 9875

July 24th (Sun) 8.15pm News and Net 6625 and 9875

July 25th (Mon) Committee Meet, 7.30 pm Hazel Ave

July 31st (Sun) 8.00pm Official Broadcast followed by News and Net 6625 and 9875.

August 7th (Sun) 8.15pm News and Net 6625 and 9875

August 8th (Mon) 7.30 pm Hazel Ave Clubrooms, Packet - Past and Present, Paul ZL4AX

August 13th (Sat) Hamilton Equipment Sale

August 14th (Sun) 8.15pm News and Net 6625 and 9875

August 21st (Sun) 8.15pm News and Net 6625 and 9875

August 28th (Sun) 8.00pm Official Broadcast followed by News and Net 6625 and 9875.

August 29th (Mon) Committee Meet, 7.30 pm Hazel Ave

Presented to
JIM MEACHEN
ZL2BHF
~~~~~
for services to
Auckland VHF Group Inc
Branch 66 NZART
and to
Amateur Radio
9th May 2011



Jim ZL2BHF, our ex Vice President was presented with a Plaque in appreciation of his services to the VHF Group over many years. We wish Jim all the best for his new venture southward.

Left to Right
Marlene, John and Jim



Whangarei Branch

OUR USED EQUIPMENT SALE.

IS ON

SATURDAY 2ND JULY

TABLES \$10.00

BOOKINGS TO BRIAN ZLIBSW Phone 09 4388432

Or E-mail bwinger@xtra.co.nz

DOORS OPEN TO BUYERS 10.30am.

COFFEE - TEA - MILO - AND A GOOD SELECTION OF DELICIOUS FOOD FOR SALE
DURING THE MORNING

This year the afternoon has been kept free to allow for sports, visiting old mates. scenic tours
etc and so on.

HOWEVER AN EVENING MEAL AND TRIVIAL PURSUITS NIGHT IS BEING
PLANNED

GATHER AT THE CLUBROOMS AT 6pm

SERVING PLANNED FOR 6.30PM (ish)

FOR FURTHER INFORMATION AND BOOKINGS FOR THE MEAL CONTACT BRIAN
ZLIBSW (AS ABOVE)

THIS IS ALWAYS A GOOD OCCASION TO SOURCE THOSE BITS YOU HAVE BEEN
SEARCHING FOR AND FOR CATCHING UP WITH YOUR OLD MATES. DON'T MISS
THE EVENING MEAL AND PURSUITS NIGHT.

SALEABLE DONATIONS FOR THE CLUB TABLE MOST WELCOME

International Museums weekend



The International Museums weekend, an annual worldwide event, is being held over the two weekends of 18th - 19th June and 25th - 26th June 2011. We welcome all individual amateurs, groups and clubs to work with their local museums to host a special event station.

The museums taking part over the years have included ships, castles, air museums, Napoleonic forts, pumping stations, wireless museums, racing museums and many others. For the purposes of the event, the word 'museum' is loosely interpreted. There really is no shortage of venues in which such an event can be staged, no matter where in the world you might live.

Those clubs and museums which do decide to take part, should please use the *free* on-site 'Registration' facility at <http://www.ukradioamateur.co.uk/imw/>. The 'Registration' is simply to assist us in administration of the event and provide those taking part with an indication of how many and exactly where the museums taking part are located.

If you require more information then go to <http://www.ukradioamateur.co.uk/imw/> or contact Harry (M1BYT) on +44 (0)113 2866 897

Many thanks,

Bobby Wadey MI0RYL

NZART QSL Bureau

The following QSL Bureau report was missed in the latest Break-In

NZART QSL Bureau: Annual Report for 2010

Incoming Mail

DX: Packages/envelopes - 176, Cards - 33,218

ZL: Packages/envelopes - 436, Cards - 23,956

Outgoing Mail

DX: Envelopes 431 (Cards - 23,382)

ZL1 Bureau: Forty kilogrammes of QSL Cards.

ZL2 Bureau: Thirty Six kilogrammes of QSL Cards.

ZL3 Bureau: Thirteen kilogrammes of QSL Cards.

ZL4 Bureau: Twelve kilogrammes of QSL Cards.

ZL7T: Four & a Half Kilogrammes of QSL Cards (Privately funded postage)

The NZART QSL Bureau's gross expenditure for this past financial year was \$1,539.97, an increase of \$215.69 on the year ending 2009. The nett cost to the

Association was \$1105.98 as against \$900.98 for the previous year. Donations

(\$424.95) and Non-Member Fees (\$10.00) made up the balance of the running costs of the Bureau for the year under review.

The Association's sincere thanks go to those of its members who, from time to time, saw fit to enclose a donation with their QSL cards. Their generosity has helped to keep down the Association's day to day running expenses.

Year 2010 saw an increase of four per cent in

numbers of cards sent out by ZL operators whilst there was a two per cent decrease in the number of incoming cards from overseas amateurs,

During the past year, the NZ Post Office increased its postal charges partly due to the Government's decision to ramp up GST by 2 1/2%. This provided a windfall to the PO as it needed to round up its prices for stamps but despite this, the postage for large envelopes used for mailing QSL Cards to the ZL3/ZL4 Sub-bureaux suffered an increase of 20%! Over-all, there was a minimal inflationary effect on the Bureau expenses.

During the year Ross, ZL1BGB, assumed the position of ZL1-Prefix Sub-bureau Manager following the untimely passing of Ian ZL1BFB. The mailing details for the

ZL1-Prefix Sub-bureau remain unchanged.

My thanks go to our four Sub-Bureaux managers, namely Dave ZL4OZ, Charlie

ZL3CED and Ken ZL4HU, Tony ZL2AGY and Ross ZL1BGB, who attended to the stuffing of envelopes for all of the deserving during 2010.

-B. E. Stewart ZL2RR, Manager

D-STAR report

DF2ET CALL HOME!

Over the time that ZL1VHD D - Star Repeater has been in operation we have had several visitors to Auckland from overseas use the repeater to talk to Amateur friends in their own country. Here is an account of a recent contact from Auckland to Germany which appeared in a prestigious Amateur Publication in Germany.

Florian DF2ET chairman of N18 (local Amateur association) was on a trip in New Zealand with his wife for four weeks. From there he made several contacts with the club at home via D- Star. In Auckland he went up a small

hill called One Tree Hill. The locator is RF73JC.

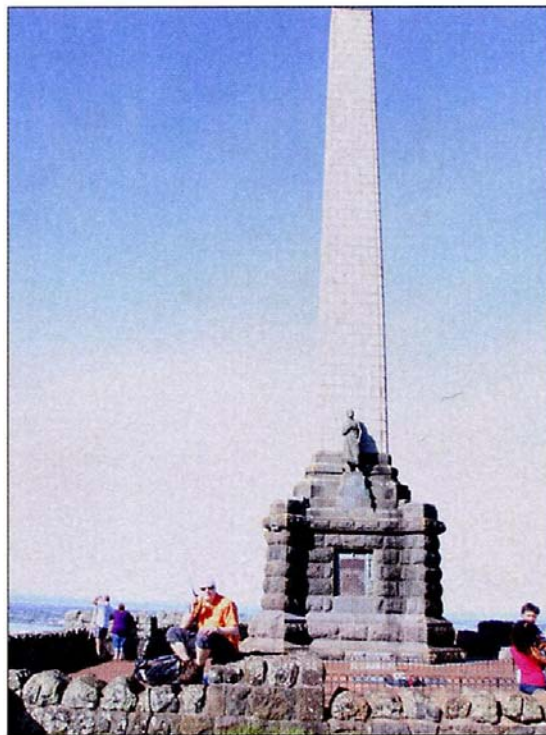
With very little power of about 0.1 watt it was no problem operating the repeater ZL1VHD.

He had QSO's with Dietmar, DG3DAL & Norbert, DG9YBM both of them were operating from Germany & the distance was about 18,000kms. The contacts were heard by Laurence ZL1ICU. He is the operator of the D-Star repeater ZL1VHD. Upon his invitation Florian & his wife Martina went up for a personal meeting. There they met Laurence and his wife (ZL1MYL) for an eyeball QSO.

A nice example for successful Amateur Radio operation, which is inspiring with new systems like D - Star

A friendship has blossomed from this meeting resulting in regular contacts between Florian, DF2ET & Laurie ZL1ICU & Marlene ZL1MYL.

73, Laurie ZL1ICU



Florian DF2ET on D-STAR from One Tree Hill 2011

WARO NEWS



With the WARO ladies preparing for their 50th Anniversary in Rotorua on Saturday March 10th 2012 we would like to invite the wives, partners & friends of Auckland VHF Group to become members of Waro.

Subscription is only \$15.00 per year starting from June 1st. (you don't have to be a transmitting member or hold a radio license to be an associate member of WARO.) Marlene ZL1MYL would like to see the Ladies get together on a more regular basis, as at present we get together about 3 or 4 times per year due to the distances the members need to travel. If we could get more members in Auckland we could plan more outings. OM's are welcome to take part too. If you are interested in joining us please contact Marlene ZL1MYL on phone 09 - 6345130 or email perma@xtra.co.nz.

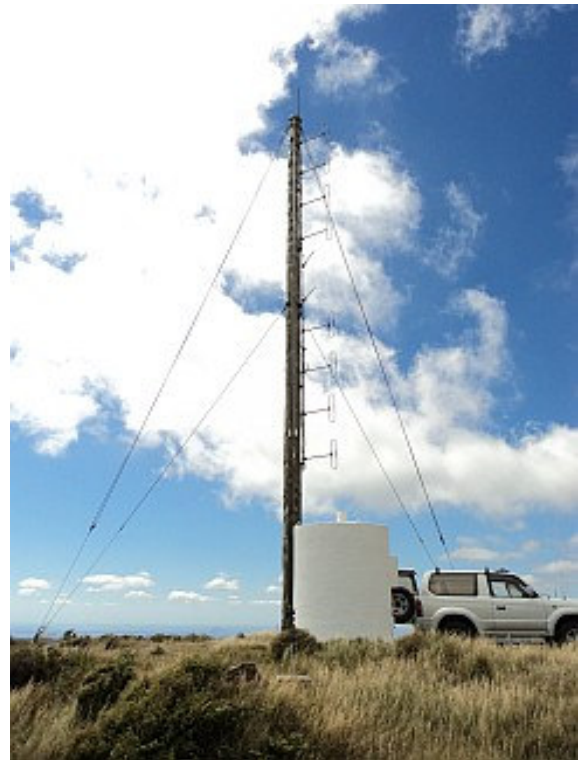
For those ladies attending the NZART Conference in Wellington in June you are very welcome to join us on the Alternative Tour & also attend the WARO AGM on Sunday morning.

We want a group of ladies who will enjoy some fun times together. You are most welcome to make suggestions for trips, cafes, restaurants etc. Maybe you know of a place that others would enjoy too.

Let us know. We try to keep the cost of our outings within every ones budget.

Have a safe & happy month.

33's Marlene ZL1MYL



From the Branch 12 Newsletter,

As you can see from the above photo, the 146.950 repeater has moved from Mt Te Aroha to Te Weraiti on the Kaimai's. Many thanks to the Waikato VHF Group (Br 81) for a very smooth transition

With thanks from the Hamiton Branch 12 of NZART



Other coaxial connectors available from the Trading Table:

| | |
|---|-------------|
| TNC plugs 50ohm for RG58 coax (crimp and clamp/solder type available) | \$2.50 each |
| BNC plugs 50 ohm for RG58 coax (clamp on type) | \$2.50 each |
| BNC plugs 50 ohm for RG58 coax (crimp on type) | \$2.50 each |
| BNC sockets 75 ohm – single hole mounting | \$1.50 each |
| BNC jack cable end crimp type 50ohm for RG58 coax Radiall R141237161 | \$1.50 each |
| PL259 coaxial plugs. Genuine Amphenol 83-ISA brand. Brown phenolic insulation. Suit RG8/RG213 50 ohm coaxial cable. | \$3.50 each |
| PL259 right angle adaptors Male-Female (limited quantity) | \$3.00 each |
| SO239 adaptor (barrel joiner) limited quantity | \$3.00 each |
| SO239 chassis mount socket (4-hole flange) | \$2.00 each |
| | |
| N Type male solder on suit RG213 coax | \$4.00 each |
| N Type male quick-fit (solder less press fit into centre pin) for RG213 | \$8.00 each |
| N Type male right angle, suit RG213 coax | \$4.00 each |
| N Type male solder on suit RG213 coax | \$4.00 each |
| N Type male crimp on suit RG213 coax ** | \$3.00 each |
| N Type socket crimp on suit RG213 coax ** | \$3.00 each |
| N Type male quick-fit (solder less press fit into centre pin) | \$8.00 each |
| N Type male right angle, solder on suit RG213 coax | \$4.00 each |
| N Type male sliver plated solder/clamp on suit RG58 coax | \$3.00 each |
| N Type male crimp on suit RG58 coax ** | \$2.50 each |
| N Type male crimp on for LMR400 / 9913 coax. ** | \$3.50 each |
| N-Type panel mount socket (4-hole flange) | \$2.50 each |
| N-Type adaptor Male to Male | \$3.00 each |
| Adaptor SMA Male to N Female | \$3.00 each |

**** Crimping service available for these at club meetings**



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Contact: Laurie Mathews, ZL1ICU

Phone: 09 6345130

Fax: 09 6343019

Email: perma@xtra.co.nz

The Auckland VHF Group Inc Branch 66 NZART gratefully acknowledges the sponsorship of Branch 66 Beacons, Repeaters and Fixed Links licence fees and the Group's repeater operations by the following radio amateurs and NZART Branches:

| | |
|--|--|
| 53.725 Repeater - Tim Moore VK4TIM / ZL1TN | 144.253 Beacon - Steve Hayman ZL1TPH |
| 144.575 Digipeater - Franklin Branch ZL1SA | 145.625 Repeater - Jim Meachen ZL2BHF |
| 146.625 Repeater - Frank Dunatov ZL1SLO | 146.700 Repeater - Western Suburbs ARC |
| 146.900 Repeater - Franklin Branch ZL1SA | 432.235 Beacon - Steve Hayman ZL1TPH |
| 438.450 Repeater - Laurie Mathews ZL1ICU | 438.500 Repeater - Franklin Branch ZL1SA |
| 439.850 NatLink - Franklin Branch ZL1SA | 439.875 NatSys Repeater - John Dunn ZL1JD |
| 439.900 NatSys Link - Merv Passau ZL1AKX | 439.950 NatSys Link - Vaughan Henderson ZL1TGC |
| 615.250 ATV Repeater - AKVHFG ATV Group | 1296.253 Beacon - Steve Hayman ZL1TPH |

Papakura Radio Club Branch 65 NZART Donation of \$300.

If you would like to support the Auckland VHF Group by sponsoring the licence fee for one of the available Beacons, Repeaters or Fixed Links or donate towards the Group's repeater operations please contact Jim ZL2BHF by email - zl2bhf@clear.net.nz

**TXO4010T 20.000MHz High Stability Crystal Oscillator - \$5.00
each from the Trading Table**

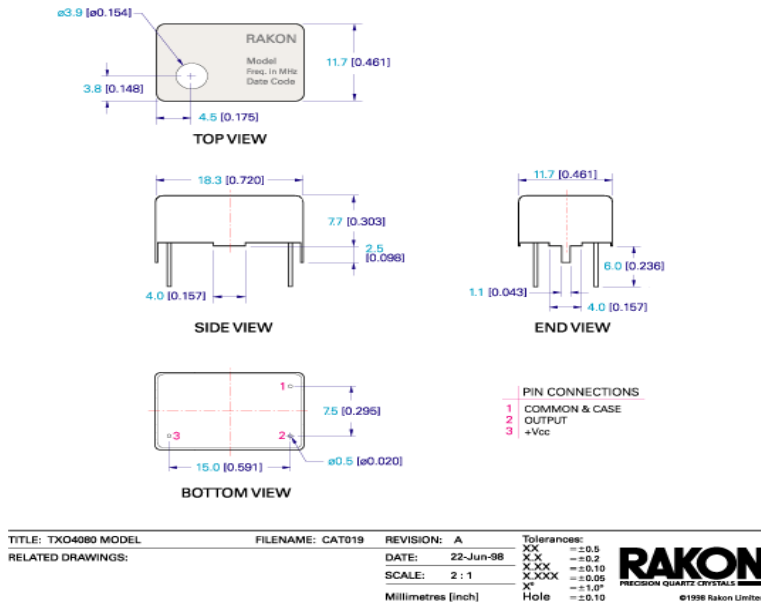
3.0 POWER SUPPLY

| | |
|-------------|-----------|
| 3.1 Voltage | +5V +/-5% |
| 3.2 Current | 2.0mA max |

4.0 OSCILLATOR OUTPUT

| | |
|--------------------|------------------|
| 4.1 Output Voltage | 1.0Vp-p min |
| 4.2 External Load | 20KW//5pF dc-cut |
| 4.3 Harmonics | -5dBc max |

Note: Outline drawing is for the TXO4080. Pin out is identical but dimensions may differ from the TXO4010T



Trading Table New Items:

Surface Mount 455kHz IF Filters

PBFS-455P20D3 20kHz bandwidth at 6dB points, 6dB insertion loss (max), 1.5k Ohm matching impedance. Data sheet available.

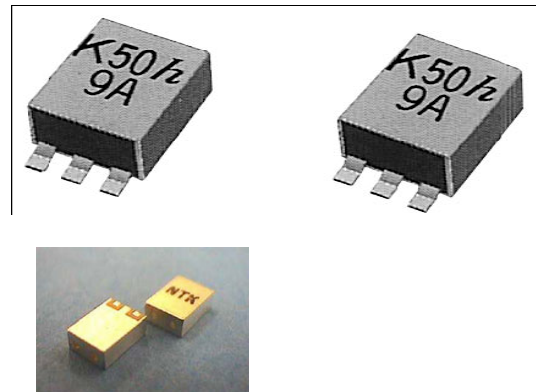
Limited quantity \$1.00 each.

MFK947CS12A 3 pole ceramic filters

Interdigital type filter, centre frequency 947 MHz

Similar to illustration, surface mount.

Limited quantity, \$0.50 each



TFS112G SAW Filters

Centre frequency 112.32 MHz.

3dB bandwidth 1.05 MHz

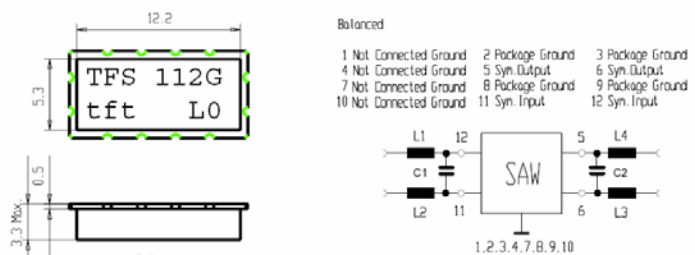
6dB bandwidth 1.72 MHz

20dB bandwidth 2.17 MHz

40dB bandwidth 2.66 MHz

Insertion Loss typically 13.5 dB.

SMD 12pin package. Data sheet supplied. \$0.50 each. Limited quantity.



PL259 Right Angle Adaptors:

\$3.00 each



TRADING TABLE

Back in stock: **PL259 UHF Connectors and Reducing Adaptors.**

UHF-MALE (PL259) connector is nickel plated, with a tapered brass tip, brown phenolic insulation and heavy duty knurling. Suits RG8, RG213 50 ohm coaxial cables. These connectors perform satisfactory up to 200 MHz, and are usable with caution up to 500 MHz. The voltage rating is 500 volts RMS.



Our price: \$2.50 each or 10 for \$20.00

Nicely machined reducer which screws into the back of the PL-259 connectors.



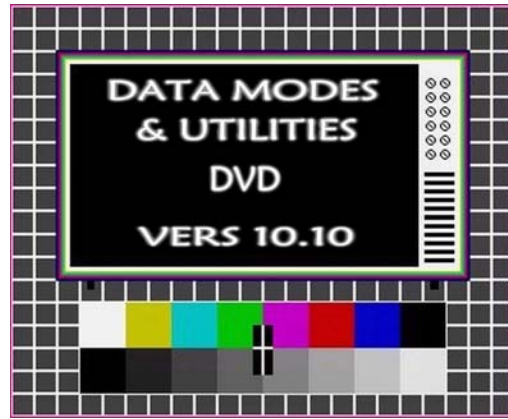
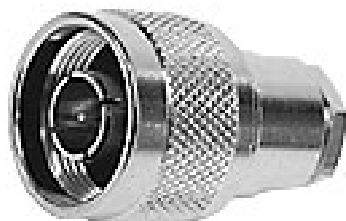
Nickel-plated on brass construction, will fit RG58/U 50 ohm coaxial cable.

Our price: 50c each.

We also have a limited number of reducing adaptors for RG8-X coax as well. Ask!

New stock just arrived of type N connectors for use with RG58 coaxial cable. These are solder clamp type, just the thing if you don't the right crimp tool!

Only \$5.00 each – be in quick, we only have limited stock.



DATA MODES & UTILITIES CD has even more updates and new programmes on this latest release. **Still only \$10.00**

AREC recommended "T" type connectors:

Set of male and female quick connect terminals and housings similar to illustration. Terminals are tin plated, not brass as shown.

Only \$2.00 per set



Subscriptions for the 2011 year are now due. Please check your details on the wrapper around your Spectrum, and forward the updated form with payment to the Treasurer or bring to the next meeting.